

# Manufacturers RECORD

## An Exponent of Americanism

Entered as second-class matter at the Postoffice at Baltimore, Md., under the Act of March 3, 1879

Vol. LXXIV No. 18  
WEEKLY  
ESTABLISHED 1882

BALTIMORE, MD., OCTOBER 31, 1918

\$6.50 PER YEAR  
SINGLE COPY 15 CENTS

### *“O God, Hear the Cry of American Motherhood”*

Wildwood, N. J., October 23, 1918.

Mr. Edmonds—I am not writing to you, I am speaking to you, and to men who will hear my message through the thunderbolts of your pen.

Since my last letter the war has assumed even greater proportions in my life, for now all of my four sons are under orders; my youngest son has answered the call of his country. The hour is heavy with destiny, heavier than when General Haig called out to the world, “We are fighting with our backs to the wall.”

Germany has sent to us another note so full of hypocrisy and transparent deceit that it seems as if no citizen of America with the interests of civilization at heart could give it even a passing thought. And yet there are many who are anxious and wait with dread the outcome.

With four sons in the service I believe the power is given me to interpret the hearts of women. Do men know what we are suffering? There is a knife thrust in the heart of every mother in America today, and yet have you heard one word from any one mother that to assuage her grief she would ask for an armistice or a peace which would leave Germany unrepentant? God forbid! Our crusader sons would shame to own our motherhood were we to fall so low!

I am down here by the sea. Every day I go to the market with my basket. It is a novel experience, for it brings me in contact with all classes of women. This morning I waited my turn, for a little old lady had precedence. She was pitifully poor; her hair had blown wildly about her face. She was wrinkled and her eyes were dull and her hands were trembling. She was one the crowd would pass and never see. She talked to the marketman. I overheard, “I got a letter today, Mike, and two postal-cards from Jimmie. Ah, that boy! He is a fighter, Mike. He says he is a-runnin’ them. And he is in the front. But, Mike, I’ve been readin’ in the paper that they’re talkin’ of peace—” Then all the age seemed to fly from her eyes. A flush ran to the roots of her hair, the little trembling hands clenched. It was the last flame of her life that sprang into fire that moment. She took Mike’s arm, and I saw that she shook with a deep emotion—“Oh, Mike, you don’t think they will be stoppin’ Jimmie before he gets to Berlin?”

I left the shop and all plans for my noonday meal, and went with a rushing spirit down to the lonely beach where I could talk undisturbed with my Great Companion.

A vast immensity was about me. A terrible expanse of sea and boundless sky. I turned in every direction, and it seemed to me that from every zone I could hear those unexpressed cries of dauntless women—those who are old and lonely and poor, who have no one to speak for them, yet in whose souls there burns the divine fire of courage which has always been given to women to possess. I felt the spirit of their sacrifice, and I knew it was a sacrifice which would endure to the end of time. I gathered together all of their silent tears, all of their mute prayers for victory, all of their heroism, all of their silences, which are greater than the deeds of the mighty, and I put them into a golden chalice.

There by the lonely sea, in the immensity, in the glory of a new day, I lifted my arms to Heaven, and I cried aloud and my voice was heard above the roar of waves, for those others were with me, those who watch and wait and pray for victory, those gathered with me, a vast company of the unexpressed motherhood.

“Oh, God!” I cried, “don’t let them stop Jimmie till he gets to Berlin!”

To RICHARD H. EDMONDS, Esq.  
Editor Manufacturers Record

IDA M. H. STARR.  
(Mrs. William J. Starr.)

# BETHLEHEM STEEL COMPANY

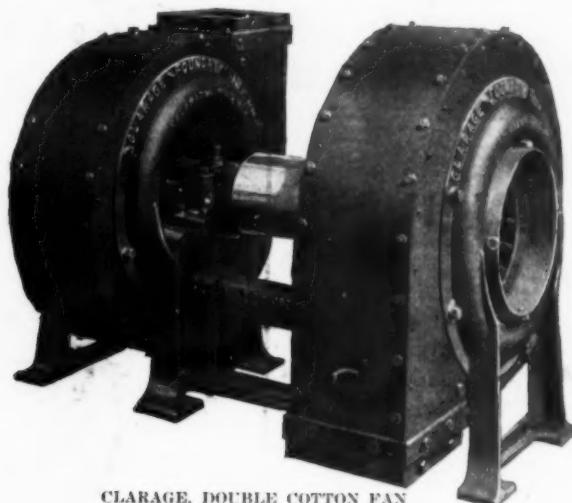
## IRON AND STEEL PRODUCTS

GENERAL OFFICES:

SOUTH BETHLEHEM, PA.







CLARAGE, DOUBLE COTTON FAN

**CLARAGE**  
KALAMAZOO

## Cotton Exhausters

Clarge Cotton Fans are built to give *Superior Service* with the *Least Possible Attention*.

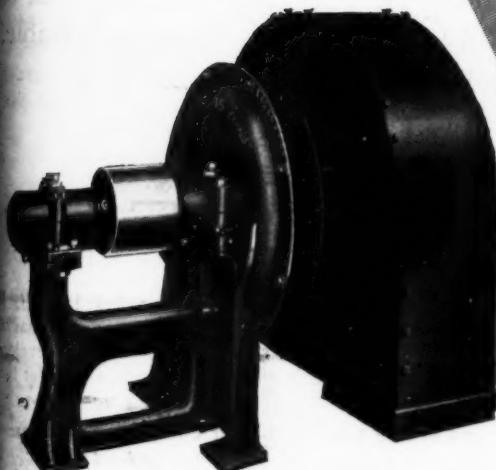
Clarge "High Efficiency" Multi-blade Wheel was especially designed for Elevator and Seed-Blowing Fans. Owing to the peculiar curve and shape of the blades of this wheel, it will develop the pressures necessary when using considerably *less power* and running at a *lower speed*.

These Exhausters are furnished with Special Bearings—entirely enclosed, dust-proof and oil-tight—such bearings reduce the fire risk.

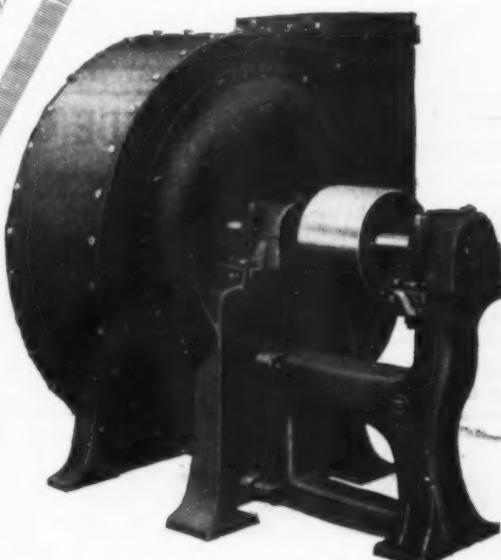
Every fan is given a running test after assembly for shipment. This insures that *Clarge Fans are Right* when they reach you.

Your gin manufacturer will supply you with Clarge Cotton Fans if you insist.

**CLARAGE FAN COMPANY**  
KALAMAZOO,  
MICH.

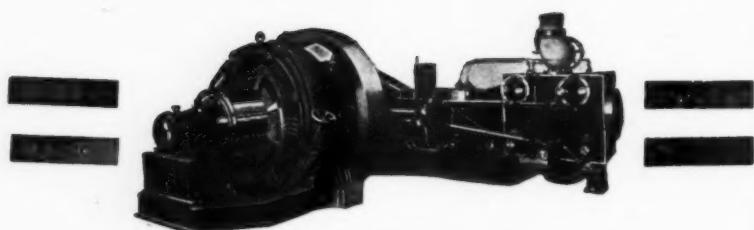


Clarge, Single Cotton Exhauster, showing wheel partly removed from casing. This is very easily done, merely the removal of eight tap bolts along side plate. It is not necessary to disturb either inlet or outlet connection.



Clarge, Single Cotton Fan, equipped with Ball Bearings, SKF Balls and Races—especially designed Clarge Bearing Cases.

**CLARAGE FAN COMPANY.**  
KALAMAZOO



## BALL CORLISS ENGINE

WITH NON-RELEASING GEAR

THE essential feature in a power unit is *Reliable Operation*. It's a fact that you can't get away from. The wheels must go 'round in order to keep up production. In many plants the actual cost of power is a small item in the cost of the product, but an interruption to service is a costly item.

Ball engines are built to meet the needs of particular buyers, men who appreciate that it takes good design, good workmanship, and good materials to meet the demands of modern power plant practice.

Surround your plant with an atmosphere of security by installing a Ball Engine

It's a paying investment

**BALL ENGINE CO., ERIE, PA.**

## ENGINES BOILERS

Steel Casing Settings, Heaters, Stacks, Tanks, Stills  
THE HOUSTON, STANWOOD & GAMBLE Co.  
CINCINNATI

### 50 H. P. SELF Wygodsky STARTING CRUDE OIL ENGINES

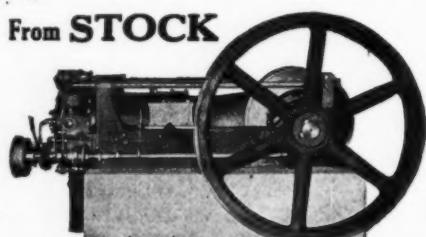
Starts on its own fuel—no storing of compressed air.  
No hot bulb—no standby losses.  
Save fuel—Save wages.

**BOEC**  
OIL ENGINES

Burn any liquid fuel.  
Designed for American conditions.

Baltimore Oil Engine Co.  
• BALTIMORE, MD.

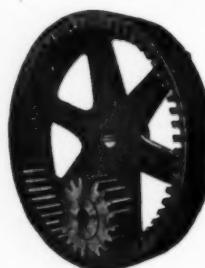
From STOCK



## GEARS

Cast Teeth Machine  
Molded or Teeth Machine Cut  
Spurs, Bevels, Miters.  
Worm Wheels, Worms.  
Mortise Wheels.

Made of Cast Iron, Cast Steel,  
Semi-Steel, Brass, Bronze, Steel

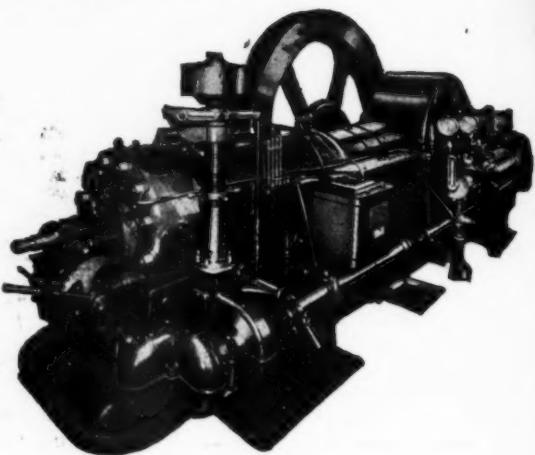


**H. W. CALDWELL & SON CO.**

CHICAGO, 17th St. and Western Ave.

DALLAS, TEXAS, 709 Main St.

60 to 1,000 H. P.



## Coal may be scarce, but Oil is not—

Warnings about next winter's coal supply are already appearing.

At the best the outlook is for a shortage of many millions of tons below the country's normal supply.

"No Coal" Offers two alternatives—

1—Shut down.

2—Employ some other source of power.

Shutting down is unthinkable when top speed production is so vital to our very national life. It logically follows that power users must turn to a dependable substitute. The Snow Oil Engine is a unit, which even in normal times, and above all in times of coal famine, has proved itself a reliable, money saving alternative.

## SNOW OIL ENGINE

The Snow Oil Engine is a Complete power plant in itself. It cuts out the upkeep of boilers, stokers, superheaters, etc. It has no auxiliaries to be kept alive during standby periods. It develops great power on low fuel consumption and what you spend for fuel is actually converted into power.

The Snow Oil Engine is suitable for every power purpose—driving generators, pumps, air compressors, line shafting, etc. It operates on the lowest grades of cheap crude oil; starts instantly and picks up full load in 11 seconds. High compression type, requiring no ignition apparatus. No explosive shocks—no vibration.

Send for Bulletin S-130-29 and get full details about the Snow Oil Engine

**Worthington Pump and Machinery Corporation**

New York Office: 115 Broadway

Snow-Holly Works: Buffalo, N. Y.

Branch Offices in all All Principal Cities

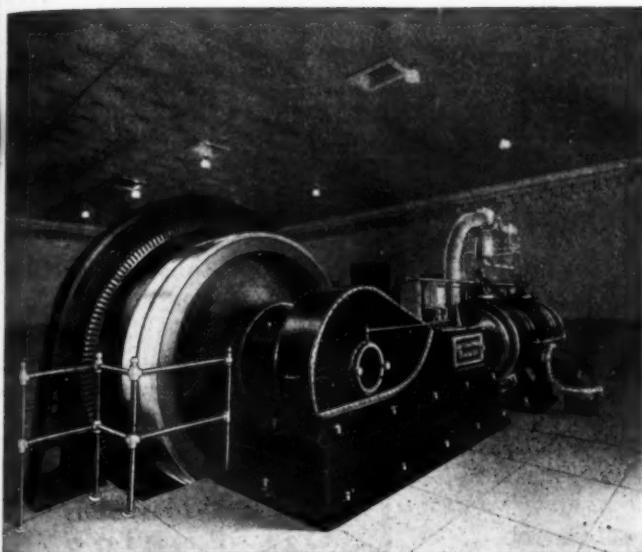
5248-4

XUM

# STIMPSON-RIVETS



## The Ames Una-Flow Engine



500 H. P. AMES UNA-FLOW ENGINE INSTALLATION

The superiority of the Ames Una-Flow is because of Ames design and workmanship built in the engine. Repeat orders from satisfied customers justify our claims and guarantees. Condensing and non-condensing in sizes 50 to 1000 H. P.

**AMES IRON WORKS**  
OSWEGO, N. Y.

*Offices in All Principal Cities*

## CLARK BROS. CO.

OLEAN, N. Y.

Manufacturers of

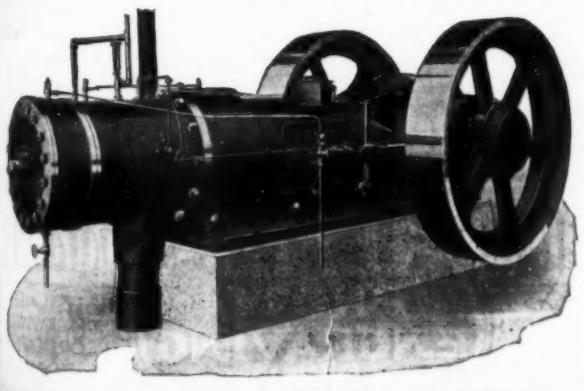
Triple and Compound Marine Engines  
Corliss and Automatic Engines

Sawmill Machinery both Portable  
or Stationary Band or Circular

We invite your Inquiries  
and Specifications

*Established 1880*

## PRIMM HEAVY OIL ENGINES



Looks like  
Operates as smoothly as  
Starts as easily as  
As dependable as

A STEAM ENGINE

But burns Crude Oil or any of its cheaper by-products, thereby greatly reducing your power costs, no matter what kind of prime mover you are now using.

A size and type for every need illustrated in our catalog

**THE POWER MFG. CO. DEPT. No. 1**  
MARION, OHIO

Visit Our Big Modern Plant

## Allis-Chalmers Oil Engine

DIESEL TYPE

ENGINE - GENERATOR - EXCITER  
SWITCHBOARD - TRANSFORMER

All Our Own Manufacture

Undivided Responsibility to Purchaser

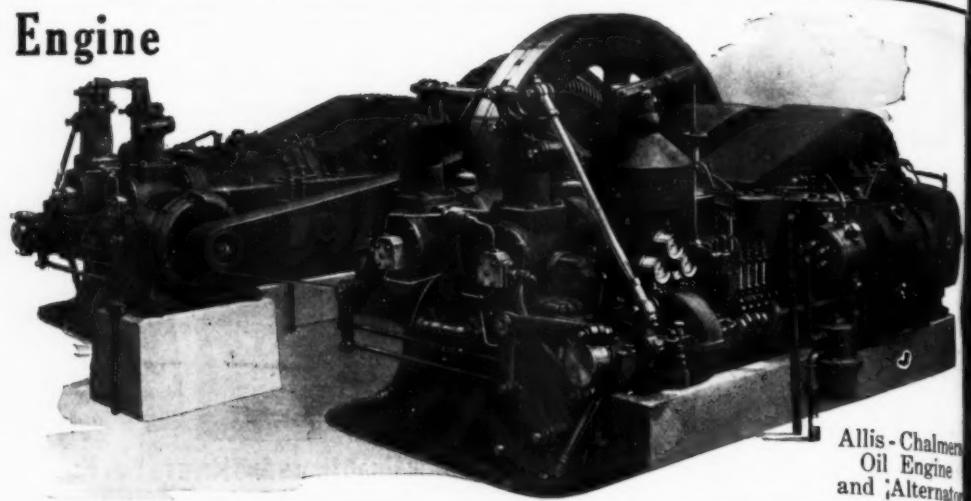
UNEQUALED IN

ECONOMY - RELIABILITY - ACCESSIBILITY

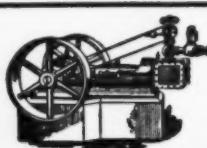
Write our nearest Branch Office  
For Bulletin No. 1532-AAllis-Chalmers Manufacturing  
Company

MILWAUKEE, WISCONSIN

OFFICES IN ALL PRINCIPAL CITIES



Allis-Chalmers  
Oil Engine  
and Alternator



## Schofield Engines GUARANTEED For Heavy Duty

from FACTORY to You

If you are looking for an engine to withstand heavy duty—an engine that is well adapted for the saw mill, oil mill and the cotton ginnery, or wherever an engine can be used to advantage—investigate the Schofield Engine.

### Long Wear—Less Steam

In wearing qualities and the economy of steam, the Schofield Engine is unsurpassed. Sixty-seven years of experience has enabled us to produce the highest quality and type of engine—and one we can fully guarantee. All sizes. Center Crank type—12 horse power to 100 horse power—side crank type 50 horse power to 150 horse power.

We also manufacture boilers, tanks, towers, smoke stacks, saw mills, and all kinds of machinery—mill supplies, pipe, galvanized roofing, etc.

Write today for prices and catalogue containing illustrations and specifications.

Schofield Iron Works. • Macon, Ga.

FREE Catalog  
TANKS and TOWERS,  
BOILERS and ENGINES  
Specialty.

## USE Renewed Tungsten Lamps

in place of Carbon Lamps. It conserves fuel and gives greater satisfaction.

Send orders to

**BOSTON-ECONOMY LAMP DIVISION**

NATIONAL LAMP WORKS OF GENERAL ELECTRIC CO.

43 Hospital Street

PROVIDENCE, R. I.

## In Our Navy Yards and on Our Fighting Ships ECONOMY renewable FUSES



For many successive years the U. S. Navy has protected vitally important electrical circuits ashore and afloat with ECONOMY renewable FUSES.

History has repeated itself. A new contract has recently been awarded this company to fill the Navy's renewable fuse requirements for another year.

An inexpensive little "Drop Out" Renewal Link restores a

blown Economy Fuse to its original efficiency.

As compared with the cost of Non-Renewable Fuses, the government has saved as high as \$76,480.00 on a single delivery to one navy yard.

In thousands of plants representing all branches of industry Economy Fuses and "Drop Out" Renewal Links cut annual fuse maintenance costs 80%.

Order by brand from your electrical jobber or dealer.

Write for Catalog 93.

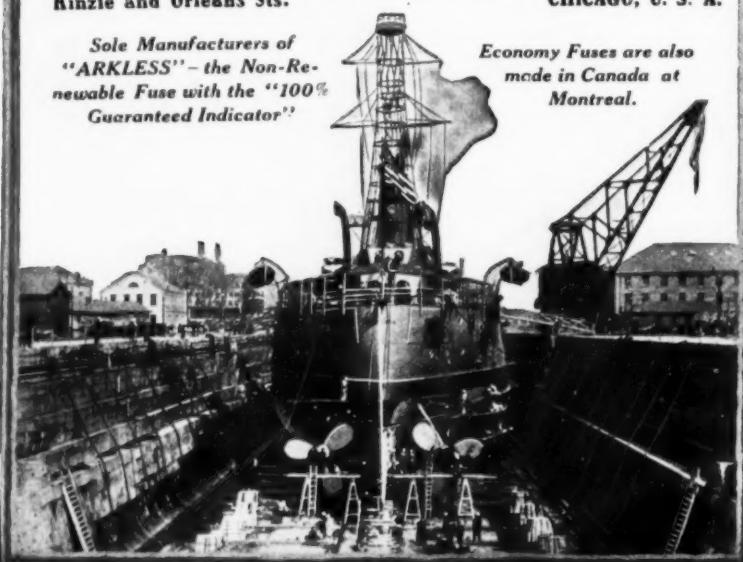
**Economy Fuse & Mfg. Co.**

Kinzie and Orleans Sts.

CHICAGO, U. S. A.

Sole Manufacturers of  
"ARKLESS"—the Non-Renewable Fuse with the "100%  
Guaranteed Indicator."

Economy Fuses are also  
made in Canada at  
Montreal.



## For cheap, dependable power—

### The St. Marys SUPER-DIESEL Oil Engine



From 4 to 60 H. P.

Write for Catalogue

THE ST. MARYS OIL ENGINE CO., ST. CHARLES, MO.

### Buckeye Barrett CRUDE OIL ENGINES

#### SEMI DIESEL

For all power purposes

75 to 180 H. P.

The Buckeye Machine Co.  
LIMA, OHIO



### CORLISS ENGINES

Boilers of All Styles and Sizes

MURRAY IRON WORKS COMPANY

BURLINGTON, IOWA

INCORPORATED FEBRUARY 1, 1870

Engine on Exhibition in the Bourse, Philadelphia, Pa.



# FUEL SAVING SUGGESTIONS

## Leaflet 2032

Leaflet 2032 is devoted entirely to fuel saving suggestions.

It is not a lengthy discussion.

It is theory boiled down to the very essence of practicability—short, concise, workable, understandable.

Applies to both hand-fired and stoker-fired plants.

As long as the supply lasts the leaflet will be mailed to any one in charge of, or actually engaged in, boiler-house work.

(We desire, however, that the supply go only to those in a position to make practical use of the information).

**WESTINGHOUSE ELECTRIC  
& MFG. CO.**

East Pittsburgh, - Pennsylvania



# Westinghouse

BATTERIES  
MANUFACTURED  
BY  
THIS COMPANY  
ARE USED  
By Large Central  
Lighting and Power  
Companies.  
By Telephone and  
Telegraph Companies  
and for Wireless.  
For Mine Locomotives,  
Battery Street  
Cars, Railway  
Signals, etc.  
For Electric Vehicles  
and Industrial  
Trucks and Tractors.  
For Automobile  
Starting and Lighting.

## "Exide" BATTERIES

are doing their part in helping to speed up the efficiency and bring about greater production in every industry where the application of storage battery power is a factor.

And wherever the storage battery can be used, we have a special type of battery best suited to the particular need—a battery that has thirty years of storage battery building experience built into it—a battery that is a "Giant" for work, dependability and durability.

### THE ELECTRIC STORAGE BATTERY CO.

The oldest and largest manufacturer of Storage Batteries in America

1888 - PHILADELPHIA - 1918

New York Chicago Cleveland Rochester Minneapolis Washington Denver  
Boston St. Louis Atlanta Pittsburgh Kansas City Detroit San Francisco Toronto



## Safety and Efficiency

The extensive use of electrical power in the modern factory emphasizes the importance of an efficient armored conductor.

Wiring of mechanical installations, particularly such as cranes and other moving machines, demands a conductor that is not only flexible, but also really armored.



REALFLEX answers to these specifications. In our large works we have used it for years and thus tested it under all conditions, finding it easy to install, durable and efficient.

For installations where dampness, acid fumes or similar conditions are to be met, Lead-covered REALFLEX is recommended.

**The Youngstown Sheet & Tube Company**  
Youngstown, Ohio

## NEW BRASS SCREWS FOR SALE

At 75% Discount

Send for list; subject to prior sale.

**UNION TRACTION COMPANY  
OF INDIANA**  
ANDERSON, INDIANA

## Green Fuel Economizer Co.

NEW YORK, N. Y.

Builders of Green Fuel Economizer  
and Mechanical Draft Fans

## Carroll Electric Co.,

Jobbers of

Electrical and Mill Supplies

Machinery, "Westinghouse"

**WE HAVE THE GOODS**

Washington, D. C.

## The Cutler Mail Chute

A recognized necessity in modern buildings

of the office, hotel and apartment class.

Send for circulars and full information to the sole makers.

**CUTLER MAIL CHUTE CO.**

Rochester, N. Y.

**ALUMINUM**  
Feeder Cable Bare and Insulated  
Transmission Cable  
Aluminum-Steel Reinforced  
FOR  
EXCEPTIONALLY LONG SPANS  
**ALUMINUM CO. OF AMERICA**  
PITTSBURGH, PA  
WASHINGTON CHICAGO KANSAS CITY

## Electrical Machinery Repaired

GENERATORS—ARMATURES—TRANSFORMERS



Burned Out Motors and Generators Rewound. High Grade Armature Rewinding. Prompt Service. Workmanship Guaranteed.

**CHARLOTTE ELECTRIC REPAIR CO.** Charlotte, N. C.  
The Best Equipped Electrical Repair Works in the South



safeguards the boiler against the dangers incident to high or low water levels, automatically sounding an alarm when the water level approaches either danger limit.

In addition to safeguarding the boiler, it also assists in maintaining a uniform water level which contributes materially to economy in the use of fuel.

The practical design, embodying but few, substantially constructed parts, accounts for the continuous satisfactory service which the "Vigilant" gives, and all parts being easily renewable insures its permanence on the boiler.

Users will profit by their installation. The repair or replacement of a part, when occasion requires, not only saves time and money, but also aids in the conservation of boiler equipment. CONSERVE and ECONOMIZE—both are essential to our success in the war.

## THE LUNKENHEIMER CO.

"QUALITY"

Largest Manufacturers of  
High Grade Engineering Specialties

in the World

CINCINNATI

New York

Chicago

Boston

London

20-9B-62

**DOMINION**  
PISTON ROD  
PLUNGER—VALVE ROD  
CROSS EXPANSION  
PACKING



The finest low and medium-pressure packing obtainable. Ideal for ammonia, ice, brine machines, piston-rods, valve-stems, expansion joints, where steam pressure is less than 150°.

**DOMINION ASBESTOS AND RUBBER CORPORATION**

154 Nassau Street, NEW YORK

BRANCHES: 67 Murray St., N. Y.; Philadelphia, Baltimore, Richmond



No. 6 B. &amp; S. Solid Copper

Strength obtained by using four times as much copper as needed for conductivity. Copper is expensive.



*Drawn from the product of  
Copper Clad Steel Co., Pittsburgh*

No. 8 B. &amp; S. Aristos "Copperweld"

Copper for conductivity. Strength from steel. Steel is at least three times as strong as copper.

## These Wires Have Equal Strength

### *Which Should You Use?*

The "Copperweld" Copper Clad Steel Wire for the needed conductivity

- weighs 42% less than copper
- has 44% higher elastic limit
- has 21% smaller diameter and therefore 21% less projected surface exposed to wind pressure and capable of carrying sleet load

*—and you get over two miles of "Copperweld" for the price of one mile of copper wire.*

"Copperweld" is not a cure-all, but where some of the conductivity of solid copper wire can be sacrificed for greater tensile strength or where exposed steel conductors would corrode, "Copperweld" will make big savings.

*Our new book, "Aristos 'Copperweld' Copper Clad Wire," explains in detail. Send for and read your copy.*

## PAGE STEEL & WIRE CO.

*Established 1883 as Page Woven Wire Fence Co.*

Makers of "Copperweld" Copper Clad Steel Wire; ARMCO Welding Rods and Electrical Wire; Wire Mill Products, Plain and Galvanized; Wire of Special Analysis; Wire Fencing for all Purposes; Factory Gates; Ornamental Iron Fence; Machine Guards; Tool and Stockroom Partitions; Architectural Iron.

*PLANTS: Monessen, Pa., and Adrian, Mich.*

**SALES OFFICES: 30 Church St., New York**

**WESTERN REPRESENTATIVES: Steel Sales Corporation, Chicago**



# THE BABCOCK & WILCOX COMPANY

85 Liberty Street, NEW YORK

BABCOCK & WILCOX—STIRLING—RUST

## WATER TUBE STEAM BOILERS

### STEAM SUPERHEATERS

Works:  
BAYONNE, N. J.

### MECHANICAL STOKERS

Atlanta.....Candler Building  
Boston.....9 Federal St.  
Chicago.....Marquette Building  
Cincinnati.....Traction Building

Cleveland.....Guardian Building  
Denver.....435 Seventeenth St.  
Havana, Cuba.....Calle de Aguilar 104  
Los Angeles.....I. N. Van Nuys Bldg.

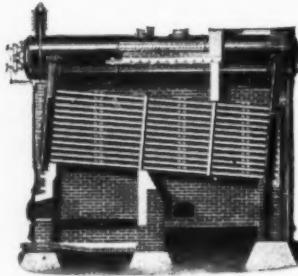
New Orleans.....533 Baronne St.  
Philadelphia.....North American Building  
Pittsburgh,  
Farmers' Deposit Bank Building

Salt Lake City.....705-6 Kearns Bldg.  
San Francisco.....Sheldon Bldg.  
Seattle.....Mutual Life Building

### BRANCH OFFICES



Pressures 160 to 300 Lbs.  
Units 100 to 1,000 H. P.



CHATTANOOGA,  
TENN.

All steel construction. Drop forged, everlasting H H plates. Baffling, vertical, horizontal or combination. Supported free of brick work. Can be arranged for superheater or any type stoker without radical change in design.

### THE CASEY-HEDGES CO.

CHICAGO, Marquette Bldg.

NEW YORK, 39 Cortlandt St

NEW ORLEANS, 943 Bolivar St.

### HARTLEY BOILER WORKS BUILDERS OF HIGH GRADE BOILERS

Stand Pipe, Self-Supporting Stacks, Tanks, Towers, all kinds of Structural and Plate Iron Work, Boiler Fronts, Grate Bars, all kinds of Castings.  
MONTGOMERY, ALA.

### THE LOOKOUT BOILER & MFG. COMPANY

TANKS—FOR ALL PURPOSES—BOILERS  
STACKS, TOWERS, STANDPIPES, STEEL PLATE & SHEET METAL WORK  
CHATTANOOGA, TENN., U. S. A.

### VALK & MURDOCH CO. MARINE AND STATIONARY BOILERS

Phosphate and Fertilizer Machinery—Sheet Iron Work—Iron and Brass Casting  
East End of Calhoun Street

CHARLESTON, SOUTH CAROLINA

### RUST CHIMNEYS

RADIAL and COMMON BRICK and REINFORCED CONCRETE  
LINING FOR STEEL STACKS AND FLUES

### CONCRETE, BRICK and STEEL CONSTRUCTION

FOUNDATIONS, STEEL WORK and  
BOILERS ERECTED. BRICK and  
CONCRETE WORK FURNISHED  
COMPLETE for the INSTALLATION  
of BOILERS, FURNACES, STILLS,  
SAW MILL REFUSE BURNERS,  
COTTON SEED STORAGE BINS, STORAGE TANKS and  
BINS. BUILDINGS and COMPLETE INDUSTRIAL  
PLANTS.

CONTRACTS EXECUTED IN ALL PARTS OF THE WORLD.

The RUST ENGINEERING CO.  
ENGINEERS and CONTRACTORS

General Offices: PITTSBURGH, PA.

Birmingham  
Chicago

New York  
Cleveland

Philadelphia  
Pittsburgh

Tulsa, Okla.  
Washington



### BOILERS

### TANKS

SOUTHERN  
OBOILER & TANK WORKS  
MEMPHIS

SMOKE STACKS  
RIVETED PIPE  
STEEL BARGES

GRATE BARS  
FIRE FRONTS  
STEEL BOILER SETTINGS

### LOMBARD IRON WORKS & SUPPLY CO. AUGUSTA, GA.

Machinery - Supplies - Repairs - Castings

### Union Water Tube Boilers

Ask for our new catalogue, which describes in detail the many advantages of these boilers.

We will gladly send this catalogue on request.

*We also make a complete line of  
Fire Tube Boilers.*

**UNION IRON WORKS, ERIE, PA.**

### THE EDNA BRASS MFG. CO. MANUFACTURERS OF

Injectors

Lubricators

Water Gages

Gage Cocks

Check Valves

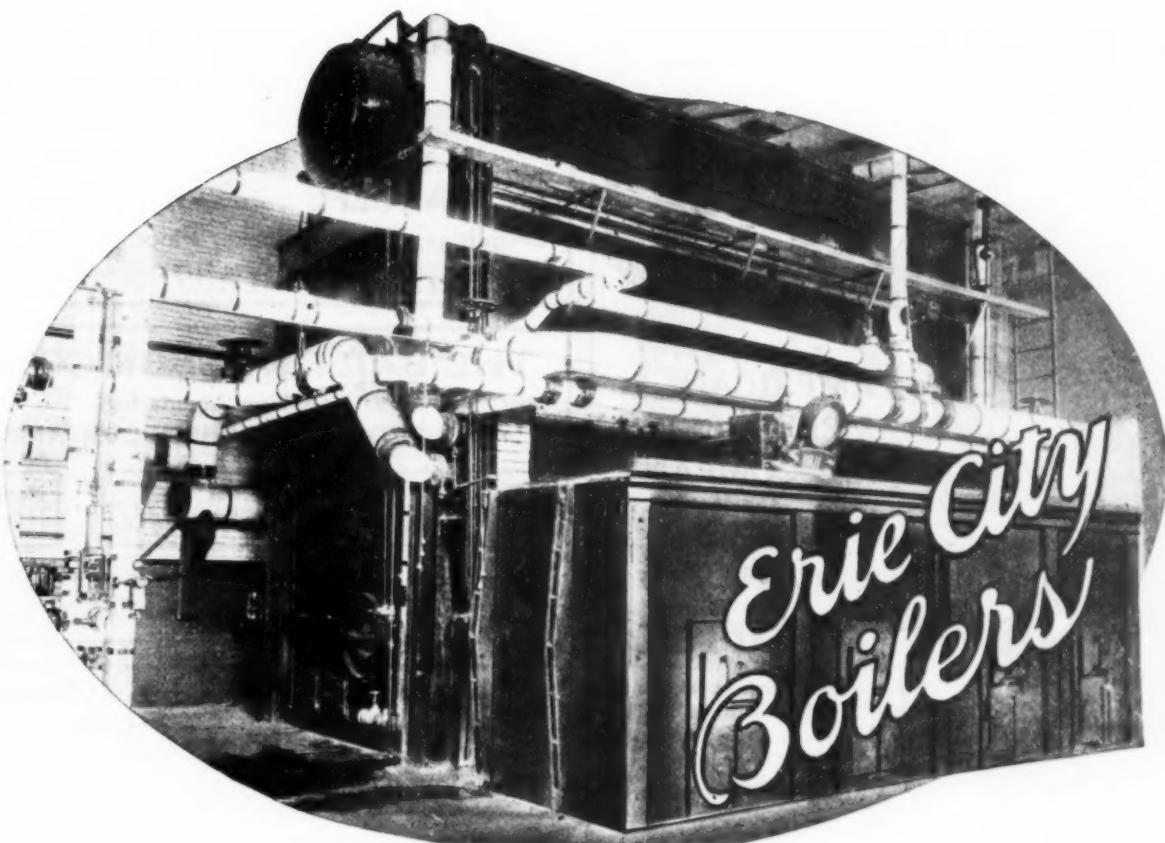


Coal Sprinklers  
Cylinder Cocks  
Oil Caps  
Boiler Checks  
Whistles

BRASS, BRONZE and COPPER CASTINGS  
BUSHINGS, CAR BRASSES and ENGINE BEARINGS

FACTORY  
525-533 READING ROAD  
CINCINNATI, O.

BRANCH OFFICE  
551 McCORMICK BLDG.  
CHICAGO, ILL.



## Power Economy in the Cotton Mills

Cotton is still aviating skyward. Even now you can buy a pound of turkey with a pound of cotton.

Lucky is the cotton mill that has economical equipment these days—especially in the power end. Such a manufacturer can thank his stars if he has Erie City Vertical Water Tube Boilers.

An installation of two 210 H. P. Erie City Vertical Water Tube Boilers at the Altavista Cotton Mills, Altavista, Va., is shown above.

Safety, low upkeep, low coal consumption, high production of dry steam, freedom from trouble-breeding hand holes and greater freedom from scale and soot deposits, are some of the advantages of these boilers. In every line of industry they are making substantial economies for power users.

There are many other important reasons why you should prefer these boilers. Let us explain. Write for our Bulletin.

**Erie City Iron Works, Erie, Pa.**



**FIRE  
BRICK**

AMERICAN  
ENAMELED BRICK  
& TILE COMPANY

Manufacturers of

Exceptionally High Quality  
**Fire Brick**

We specialize in prompt shipments of FIRE BRICK, Standard 9" and 9" Series Shapes, also FIRE CLAY.

52 Vanderbilt Avenue  
NEW YORK

(ESTABLISHED 1893)

**Goldens' Foundry & Machine Co.**  
COLUMBUS, GEORGIA  
MANUFACTURERS OF  
**MACHINE MOULDED PULLEYS  
HANGERS  
SHAFTING**  
Couplings, Pillow Blocks, Floor Stands, Collars, Etc.  
Send for Price List and Discount Sheet

**THE BAILEY-LEBBY COMPANY**  
Selling Agents for  
THE U. S. RUBBER COMPANY

Revere  
Rubber Co.

Peerless  
Rubber Co.

Mechanical  
Rubber Co.

[Send for Catalogs Covering Complete Line  
CHARLESTON, S. C.]

**MACHINERY and SUPPLIES**  
BELTING AND PACKING  
**TRANSMISSION and CONVEYING**  
SMITH-COURTNEY CO. - RICHMOND, VA.

**"Mt. Savage" Fire Brick**  
BRANDS  
"MT. SAVAGE" "REFRACTO"  
"M. S. A." "CARBURETER"  
Capacity 20,000,000 Per Year

Union Mining Co.

OFFICE AND WORKS  
MT. SAVAGE, MD.

MACHINE TOOLS  
TOOL GRINDERS  
DRILL GRINDERS  
STEAM HAMMERS  
SAND MIXERS

*William Sellers & Co., Inc.*  
Philadelphia, Pa.  
SHAFTS PULLEYS HANGERS COUPLINGS, ETC.

LOCOMOTIVE INJECTORS  
VALVES STRAINERS  
BOILER WASHERS  
BOILER TESTERS  
SAFETY SQUIRTS

## STEVENS FIRE BRICK REFRACTORIES

Prepared Fire Clay  
Fire Clay Flue Pipe

Sewer and Culvert Pipe  
Chimney Tops  
Well Tubing

Flue Lining  
Fire Proofing

STEVENS BROS. & CO.

Stevens Pottery

GEORGIA

HAVE YOU TRIED  
**WALL'S EVERLASTING-STEEL TORCHES and OILERS**

They are Guaranteed. Write  
The P. Wall Mfg. Supply Co.

Allegheny, Pa.

J. ROSS MCNEAL WALTER L. GRAHAM CHAS. H. DENNY L. A. DAUGHERTY  
Pres. and Treas. Vice-President 2d Vice-President Secretary

**Empire Machinery & Supply Corporation**

36 Commercial Place, NORFOLK, VA.  
Agents for N. Y. Belting & Packing Co., Detroit Oak Belting Co., Dodge Sales & Eng. Co., Link-Belt Co., Nyanza Roofing, Jno. A. Roebling's Sons Co., Henry Disston & Sons, Simonds Mfg. Co., R. & J. Dick, Ltd., U. S. Graphite Co.'s Products.

**HENRY A. KRIES & SONS CO.**

Steam and Mill Supplies, Pipe  
Fittings, Complete Power Plant  
Equipment, Manufacturers and  
Machinists

6 and 8 W. Lombard St., BALTIMORE, MD.



**DIXON'S SOLID DRESSING**  
Cures slipping belts surely and quickly. It helps a belt deliver every ounce of "pull." Send for Booklet 80-O.

Made in JERSEY CITY, N. J., by the  
**JOSEPH DIXON CRUCIBLE COMPANY**  
Jersey City, N. J.

**COSDEN & COMPANY** TULSA  
OKLAHOMA

Manufacturers and Distillers  
OF

**HIGH GRADE  
GASOLINE-NAPTHAS  
Lubricating and Illuminating Oils**

Unexcelled Producing, Refining, Transporting Facilities

**Foster Superheaters**  
APPLIED TO BOILERS OF ANY TYPE, OLD OR NEW  
Uniform Superheat Guaranteed  
POWER SPECIALTY COMPANY

111 Broadway, New York

# Henry Vogt Machine Co.

Manufacturers of

ICE AND REFRIGERATING MACHINERY

WATER TUBE BOILERS

RETURN TUBULAR BOILERS

DROP FORGED VALVES AND FITTINGS

"SECTIONAL" ROCKING AND  
DUMPING GRATES

"SECTIONAL" STEEL CASINGS  
FOR BOILERS

OIL REFINERY EQUIPMENT

Louisville, Ky.

## AMERICAN PIANO WIRE



Perfected  
Crown  
Star



The highest degree of acoustic excellence

Made by

**American Steel & Wire Company**

Chicago New York Cleveland Pittsburgh Worcester Denver

Export Representative: U. S. Steel Products Co., New York

Pacific Coast Representative: U. S. Steel Products Co.

San Francisco Los Angeles Portland Seattle

## Cotton Duck

"Mt. Vernon"  
"Aretas"  
"Tellasee"

"Woodberry"  
"Greenwood's Bear"  
"Richland"

"Druid"  
"Hartford"  
"Selkirk"

**TURNER, HALSEY CO.**

62 Leonard St., New York

Sales Agent for

**Mt. VERNON-WOODBERRY MILLS**

Incorporated



## SUPREME AUTO OIL

is Manufactured from Southern Asphalt Base Crude—under the supervision of the most skilled chemists. It leaves less carbon as it contains no paraffine to gum and stick.

Get it from your Dealer—Look for the Sign of the Orange Disc.

There is More Power in  
THAT GOOD GULF GASOLINE and  
SUPREME AUTO OIL

**GULF REFINING COMPANY**  
The Largest Independent Refining Company in the World.

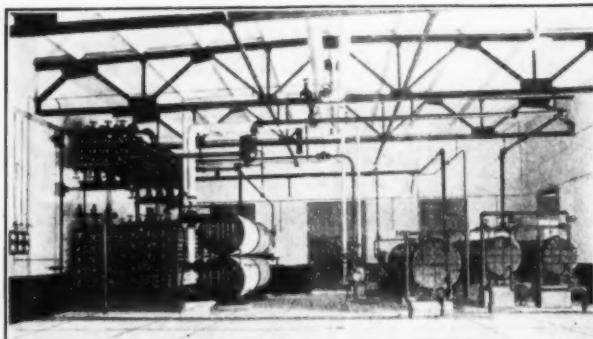


HERE are some of the books on scientific lubrication which will be gladly sent you if you will mention any or all which are of interest to you. Check those you desire, tear out this advertisement, pin to your letterhead and mail. It may mean the saving of hundreds of dollars in depreciation, power and production costs.

**SWAN AND FINCH**  
COMPANY  
NEW YORK

Quality Oil and Grease Products Since 1838

Main Office: 165 Broadway, N. Y.



100-ton Vogt Exhaust Steam Refrigerating Machine.

## Save Fuel Make By-Product Ice

Vogt Exhaust Steam and Refrigerating Machines are built in single units from 8 to 250 tons refrigerating capacity. Wherever exhaust steam is going to waste in the power plant, of practically any type of industry, it can be readily converted into ice, thereby making ice a by-product. If no exhaust steam is available, then a small quantity of live steam added to the exhaust from the auxiliary units of the refrigerating machine will give surprisingly economical results.

Vogt Machines are extensively used in Ice and Cold-Storage Plants, Chemical Plants, Packing Houses, Creameries, etc.

### Henry Vogt Machine Co. Louisville, Ky.

Manufacturers of

Ice and Refrigerating Machines, Water Tube and Tubular Boilers, Steel Casings for Boilers, Shaking Grates and Drop Forged Fittings.

## PITTSBURG FILTERS

Purify water for 175 cities and towns at a rate of 700,000,000 gallons daily.

### PRESSURE AND GRAVITY FILTERS FOR ALL INDUSTRIAL AND MUNICIPAL PURPOSES



#### Chlorine Sterilizing Plants

The Best Only

#### PITTSBURGH FILTER MFG. CO.

Kansas City, Mo.

Pittsburgh, Pa.

## MAKE ICE WITHOUT COAL—

The Arctic-Pownall Raw Water Ice-Making System makes pure, palatable, crystal clear ice, using any cheap motive power. For instance

	TONS ICE	POWER
Polar Ice & Coal Co.,	50	Electricity
Mission Ice Co.,	50	"
Pius Sinz,	15	Gas Engine
Centennial Ice Co.,	40	Electricity

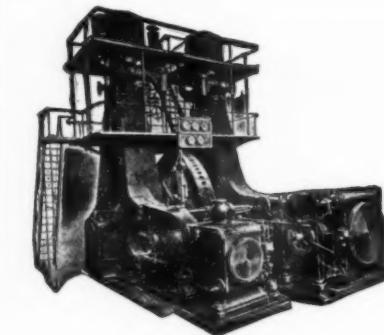
are just a few of your neighbors using this system.

*It will pay you to write us.*

#### The Arctic Ice Machine Co.

Home Office and Plant  
CANTON, OHIO

Southern Office  
O. J. MORRIS, Grand Hotel Bldg., Cincinnati, Ohio



impartially the best type of plant for you to install and what you will need to reach the highest efficiency and lowest costs.

*Get our new Fitting Catalog.*

**Frick Company**  
WAYNESBORO, PA. U.S.A.  
ICE MACHINERY SUPPLIED SINCE 1882

Baltimore, Md.  
Dallas, Tex.

Atlanta, Ga.  
St. Louis, Mo.

## BRECHT ICE MACHINES $\frac{1}{2}$ to 20 TONS



For Hotels, Markets, Hospitals, Creameries, Ice-Cream Factories, Florists, Public Institutions, Residences, etc.

Also Portable Cooling Rooms, Special Refrigerating Boxes and Cold Store Doors.

### THE BRECHT COMPANY

ESTABLISHED 1853

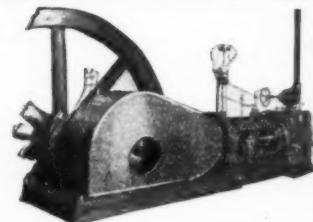
Dept. K 1228 Cass Ave.  
ST. LOUIS, MO.

NEW YORK, 176 Pearl Street  
CHICAGO, 725 Monadnock Bldg.  
PARIS BUENOS AIRES

### THE VILTER MFG. CO.

832 Clinton Street  
MILWAUKEE, WIS.

### Corliss Engines Ice and Refrigerating Machinery



### FILTERED WATER SOFTENED

Softeners or Filters of any type or capacity as separate or combination systems.

Our new SODIUM ZEOLITE method of water softening for production of water MINUS ALL HARDNESS is the most efficient and economical of its kind, and particularly adapted to Dye and Bleach Houses, Laundries, Hotels and Private Residences.

Submit your Water Problem to us.

### AMERICAN WATER SOFTENER COMPANY

1019 Chestnut Street Philadelphia

### FILTERS WATER PURIFICATION SOFTENERS INTERNATIONAL FILTER CO.

40 South Dearborn St.—CHICAGO—Woolworth Bldg., N.Y.



TO GIVE YOUR CLIENTS  
PURE WATER  
Use

### Roberts Filters

COMPLETE LINE SHOWN IN  
SWEET'S CATALOGUE,  
PAGES 1414-1415

Catalogue Mailed on Request

Be Sure of the Address  
Roberts Filter Mfg. Co.  
1707 Flatiron Building, New York  
Factory, DARBY, Near PHILA., PA.

# OILS

## THE TEXAS COMPANY

### Petroleum and its Products

#### Texaco Lubricants and Greases

IN large power plants and industrial works where power costs and lubricating oil expense are figured to the hundredth part of a cent, TEXACO LUBRICANTS are taking care of every oil requirement, from ash pit to the smallest high-speed machine in the plant.

No matter what your motive power is, no matter how large or how small your plant, we can help you in your endeavor for maximum efficiency.

#### THE TEXACO LINE includes

TEXACO STEAM CYLINDER OILS  
TEXACO INTERNAL COMBUSTION ENGINE OILS  
TEXACO TURBINE OILS  
TEXACO MACHINE OILS  
TEXACO ENGINE OILS  
TEXACO SOLID LUBRICANTS AND GREASES  
TEXACO CUTTING OILS  
TEXACO CRATER COMPOUND

**The Great Lubricant for Gears, Chains and Wire Rope.**

We shall be pleased to quote you prices on any or all of your oil requirements, always keeping in mind the fact that our large and growing lubricating business is due to our ability to furnish real service and reduce friction loss and oil expense, regardless of price per gallon or barrel.

#### Texaco Roofing

*Ready to Lay—Prepared to Stay*

TEXACO ROOFING is made of high-quality felt, saturated and coated with TEXACO Bitumen, the finest water-proofing material known, prepared in rolls with full instructions. Various weights for special purposes. On dwellings, barns, warehouses, factories, etc., it stands up under severest weather conditions and is not affected by coal gas or chemical fumes.

**GASOLINE  
ILLUMINATING OILS  
GAS OIL  
LUBRICATING OIL  
TEXACO ROOFING  
TEXACO FUEL OIL  
TEXACO ASPHALTS**

**For all purposes**

**Over 99% Pure Bitumen**

#### Texaco Motor Oils

Our MOTOR LUBRICANTS furnish high motor efficiency. Cannot form a hard carbon deposit. Lubricate thoroughly in all weathers and assist in keeping down operating expenses for pleasure cars, motor trucks and motor boats.

TEXACO TURBAN COMPOUND for transmission and differentials and TEXACO MOTOR CUP GREASE are of the same high quality as TEXACO MOTOR OILS.

#### Texaco Fuel Oil

**Complies with All Government and Naval Specifications.**

TEXACO FUEL OIL is being used by the largest Navies of the World, by Railroad Companies and large industrial concerns in this country. We employ a staff of engineers qualified to discuss your fuel problems thoroughly with reference not only to the oil itself, but to the application of the burners and other equipment.

#### Texaco Crater Compound

A RICH, heavy lubricant used for the lubrication of gears, pinions, chain belts and wire rope.

TEXACO CRATER COMPOUND is used in practically every kind of shop, plant, mine, or engineering operation in this country and is producing unparalleled economies.

On gears subjected to unusually severe conditions, where exposed to water, weather, flying dust or high heat, TEXACO CRATER COMPOUND is showing remarkable results. It adheres to gear teeth despite these deleterious conditions. It lubricates, saving them from wear, abrasion and cutting. Used on gears in steel mills, on pumps, on farm tractors, machines, hoists, conveyors, steam shovels, etc.

BY means of TEXACO CRATER COMPOUND, operators who use wire rope have been able to greatly increase its life—sometimes double. Used in coal mines, subject to mine acid fumes, on drilling lines in various oil fields and on cables and chains of steam shovels, dredges, electric cranes and hoists. Resists equally heat, water, weather or pressure and wear. Penetrates to the hemp core of the wire rope, preserves it from corrosion and checks internal friction. To those interested in "CRATER" we will be glad to send a copy of a booklet describing it. Address our New York office.

## THE TEXAS COMPANY

Dept. M, 17 Battery Place, New York City  
HOUSTON CHICAGO NEW YORK  
OFFICES IN PRINCIPAL CITIES



**There is a TEXACO LUBRICANT for EVERY PURPOSE**



**Towers and Tanks  
Storage Tanks  
Pressure Tanks  
OF ANY DESCRIPTION**  
**Structural Steel Work**  
**BOILERS**

**THE WALSH & WEIDNER BOILER CO.**

CHATTANOOGA, TENN.

BRANCH SALES OFFICES—New York New Orleans Dallas Birmingham Havana

**The Strongest  
Link in the Chain of  
SERVICE & LOW COST!**



There was never a better time to consider Redwood Tanks and Pipe than Right Now.

Iron and steel are placed under Government restrictions that make delivery a matter of chance and price a subject few can consider.

Serve best by saving most, specify and install products of American Forests, PACIFIC REDWOOD TANKS AND PIPE. All the durability of metal at a much lower cost to install and a minimum to maintain.

Our warehouse at Richmond, Va., for tanks from 500 to 50,000 gallons is your security on delivery.

**VIRGINIA MACHINERY & WELL CO.**  
RICHMOND, VA., Agents.

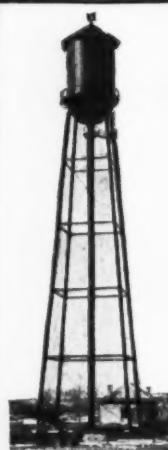
338 Market St.  
San Francisco,  
Cal.

**PACIFIC TANK & PIPE CO.**  
THE STANDARD SINCE '88

417 Liberty Building, PHILADELPHIA, PA.  
5031 Metropolitan Building, NEW YORK.

890 Trust &  
Savings Bldg.  
Los Angeles,  
Cal.

**STEEL STORAGE TANKS**



**Plate Work  
Water and Oil Tanks  
STEEL BUILDINGS**

FOR ALL PURPOSES

Plant in the Pittsburgh District

**Memphis Steel Construction Co. of Pa.**

Magee Building, PITTSBURGH, PA.

100,000-gal. capacity  
180 feet in height  
Constructed at  
Fredericktown, O.

If you contemplate the storage of water for Municipal, Sprinkler or Railway Service, write us for preliminary designs and estimates.

**PITTSBURGH-DES MOINES  
ELEVATED STEEL TANKS**

We also specialize in oil tanks, stand-pipes, barges, coaling stations and structural steel for any purpose.

**WRITE FOR CATALOG NO. 3**

**PITTSBURGH-DES MOINES STEEL COMPANY**

**Sales Offices:**

PITTSBURGH, PA.  
908 Curry Building

CHICAGO, ILL.  
1265 First National Bank Bldg.

SAN FRANCISCO, CAL.  
4317 Rialto Building

**DES MOINES BRIDGE & IRON CO.**

DES MOINES, Ia. 946 Tuttle Street

Shops: Pittsburgh, Pa.

Des Moines, Ia.  
Chatham, Ontario, Canadian-Des Moines Steel Co., Limited, 268 Innes Avenue



**Your Money's Worth**

There are vast differences in the abilities of tanks just as there are vast differences in the abilities of men.

Two tanks may look much alike. Two men may look much alike. It's the qualities *under the surface* that, in actual practice, prove the abilities of each.

You are just as much entitled to know beforehand the abilities you buy in a tank as you are in knowing the abilities you buy in a man. In each case you want your money's worth in service rendered, and in each case the best indication as to whether you will get your money's worth is a record of past performance.

The Caldwell Cypress Tank has long been known as "The Tank With a Reputation" due to a strict adherence through our thirty years of manufacture to the use of highest-grade materials and workmanship and approved engineering principles in construction.

**Send for Catalogue**

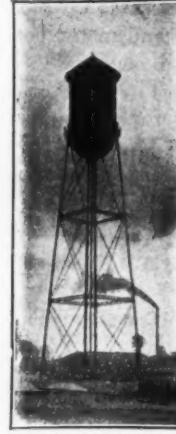
**W. E. CALDWELL CO.**  
INCORPORATED

1900 Brook St.

LOUISVILLE, KY.

*Caldwell*  
TANKS  
AND  
TOWERS

To keep in touch with Southern Development, read the Manufacturers Record



Gt. So. Lumber Co.  
Bogalusa, La.

**Chicago Bridge & Iron Works**  
We Specialize in the  
Design, Manufacture and Erection of  
**ELEVATED STEEL TANKS  
AND STANDPIPES**

for Municipal, Railroad and Factory Service. We also build oil tanks, coaling stations, bridges, turntables, building and structural material.

Our catalogue No. 4 gladly mailed to you upon request. Write our nearest sales office for prices, plans and specifications.

**SALES OFFICES**

Chicago, Ill.: 1306 West 16th St.  
New York: 2113 Hudson Term. Bldg.  
Dallas, Tex.: 1008 Praetorian Bldg.  
San Francisco, Cal.: Cal. Bldg.  
Seattle, Wash.: L. C. Smith Bldg.  
Bridgeburg, Ont.: 128 Janet St.

Jacksonville, Fla.: 906 Florida Life Bldg.

Los Angeles, Cal.: Union Oil Bldg.

Charlotte, N. C.: Keay Bldg.

Detroit, Mich.: Ford Bldg.

Greenville, Pa.: 128 Janet St.

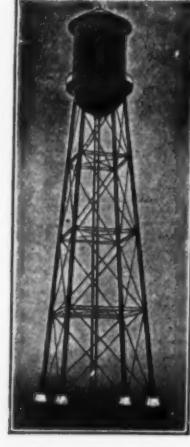
SHOPS

EASTERN—Greenville, Pa. (Pittsburgh District.)

CENTRAL—Chicago, Illinois.

CANADIAN—Bridgeburg, Ontario.

**Chattanooga Boiler & Tank Co.**  
CHATTANOOGA, TENN.



If made of Steel, we make it.  
Tanks are where for any service.

**Steel Riveted Pipe  
Standpipes  
Tanks on Towers**



## To Help the South Produce More

—more Ships, more Lumber, more Textiles—more of the products which are intimately connected with the Nation's war armaments, that is the wish which follows every Goodrich Rubber Goods item to the other side of Mason's and Dixon's line.

The South is going strong in backing her sons "over there," and she needs the very best in Rubber Goods where such equipment is required.

You can't go wrong on Goodrich Goods. After nearly fifty years Goodrich is the recognized leader in the Rubber World—a leadership built up on the solid foundation of quality in its goods.

Poor products never promote growth.

Whenever in need of strong, durable Transmission, Conveyor, Elevator and Grain Belts; well built, dependable Hose of every description; the best in Packings and Valves—anything in Rubber—let Goodrich provide you. Every item is a big bargain for you in the long run.

### THE B.F. GOODRICH RUBBER COMPANY

Makers of the Celebrated Goodrich Automobile Tires—"Best in the Long Run"

The City of Goodrich—AKRON, OHIO

## GOODRICH RUBBER GOODS

**Oak Tanned Leather Belting**  
Including  
DUXBAK Waterproof  
Write for Prices, etc.  
See our ad. in first issue monthly

*Chas. A. Schieren Company*  
Tanners  
Belt Mfrs.  
Main Office and Factory :  
26 Ferry Street, NEW YORK

### For Efficiency Always

#### CHESAPEAKE STITCHED CANVAS BELTING

Manufactured from 32-oz. duck and designed to give the best results in actual service. Made for all conditions of power transmission—inside or outside—wet or dry. Chesapeake Belting has been giving satisfactory service for over 30 years.

Write for printed matter.

CHESAPEAKE BELTING CO., Baltimore Md.



**SPARTAN BELTS**  
Unique in its pliability and consequent pulley grip.  
THE GRATON & KNIGHT MFG. CO. Worcester, Mass. U.S.A.

**Starrett**  
Combination Square

For 38 years—since 1880—Starrett Precision Tools have been building their reputation as the leaders among fine measuring instruments.

Write for Catalog No. 21-EC. It shows 200 other accurate tools.

**The L. S. Starrett Co.**  
The World's Greatest Toolmakers  
ATHOL, MASS. 42-833

**OUR GOODS WILL WEAR OUT  
BUT THEY TAKE THEIR TIME ABOUT IT**

Try our 8-hour Mail Order Service—used by those who measure their time in dollars and cents. Regular goods shipped same day order is received.

**THE CINCINNATI RUBBER MFG. CO.**  
CINCINNATI, OHIO.



## AMERICAN STEEL SPLIT PULLEYS

**A**rms cut the air  
**M**inimum belt slip  
**E**asily applied  
**R**eliable  
**I**nterchangeable bushings  
**C**arried by dealers  
**A**voids keyways and set screws  
**N**ational distribution

The American Pulley Company  
PHILADELPHIA, PA.



## WOOD SONS CO.

### Power Transmission Appliances

*"The Line Complete"*

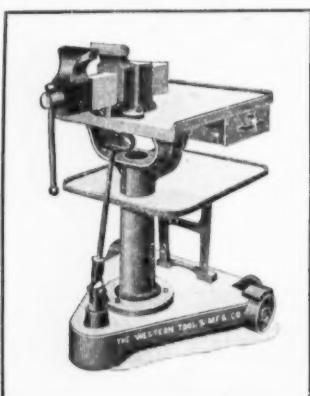
Appliances for every purpose—units which make up transmission equipments of the highest efficiency and ultimate economy.

**T.B.WOOD'S SONS CO., Chambersburg, Pa.**

MANUFACTURERS OF

The Largest and Most Complete Line of Power Transmitting Machinery Made by Any One Manufacturer

## PORTABLE VISE STAND



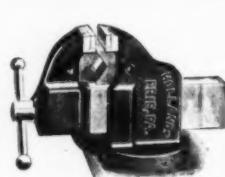
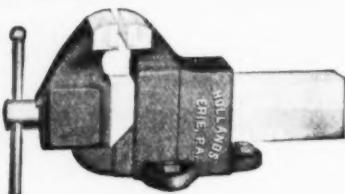
### It's a "Champion"

Really a movable bench. You can move the vise, tools and work to a machine. It's a big convenience in roundhouses, assembling rooms, repair shops, etc.

Just the thing for automobile repair shops. Let us tell you about it.

**WESTERN TOOL & MFG. CO.**  
Springfield, Ohio

*We make a large line of Shop Furniture.*



## HOLLANDS VISES

HAVE A RECORD OF THIRTY  
YEARS SATISFACTORY SERVICE

ESTABLISHED 1887.

**HOLLANDS MANUFACTURING CO.**  
ERIE, PA.

## ORDER MEDART APPLIANCES

Manufacturers of Shafting, Couplings, Collars, Hangers, Bearings, Cast-Iron and Steel Ring and Wood-Split Pulleys, Friction Clutches, Gearing, Rope Drives, Sprockets, Belt Tighteners, Hoisting Sheaves, Taper Cone Drums, Fly Wheels, Etc.

Printed Literature Sent on Request

## MEDART PATENT PULLEY CO.

Manufacturers for thirty-eight years of the most complete line of

POWER TRANSMISSION MACHINERY

BRANCH HOUSE Cincinnati SALES OFFICE  
ST. LOUIS, MO. 701 Peoples Bldg., Chicago  
ENGINEERING SALES OFFICE: Philadelphia, Colonial Trust Co. Bldg.



## POWER TRANSMITTING MACHINERY

We make a complete line of Power Transmitting Machinery, Shafting, Rope Transmission, Machine Moulded and Cut Iron and Steel Gears for heavy service.

CRESSON-MORRIS CO.

Philadelphia, Pa.



## ROBINS Conveying Machinery

Belt conveyors, elevators, unloading towers, stocking and reclaiming bridges, coal and coke crushers. Write for Our Illustrated Bulletin.

### ROBINS CONVEYING BELT CO.

13-21 Park Row, New York

Salt Lake City Office—Newhouse Bldg.

Chicago Office—Old Colony Bldg.

Birmingham, Ala.—C. B. Davis Eng. Co., Brown-Marr Bldg.



## METALINE

(Trade Mark Reg.)  
For Heavy Loads  
For Hard Service  
For Durability

BUSHINGS FOR  
HOISTING SHEAVES

THE METALINE COMPANY  
Corporate name changed from North American Metaline Co.  
West Ave., Cor. 3rd St., Long Island City, N. Y.



## FORD TRIBLOC

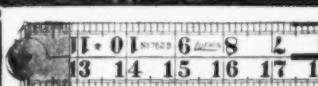
A Chain Hoist that is superior in service to any other guarantee of fine years. Has patented LOOP Hand Chain GUIDE, steel working parts and a reputation for speed. Write for new Catalog, FORD CHAIN BLOCK & MANUFACTURING CO.

244 Diamond St., Phila., Pa.

### IF YOU WANT

To get in touch with some Extra Contract Work  
ADVERTISE IN THE  
Southern Shops Seeking Contract Work  
Department

Rates on Application



## TAPES STEEL RULES WOOD RULES

Styles suited to every kind of work. Each the best of its kind.

On Sale Everywhere

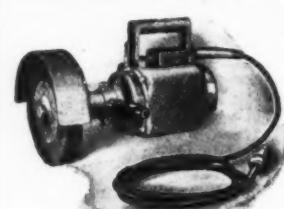
Send for Catalogue

THE LUFKIN RULE CO. SAGINAW, MICH.

New York  
London, Eng.  
Windsor, Can.



## Little Giant Electric Grinders



Can be operated on direct or alternating current. Thousands now used in foundry, machine and structural shops. Built in all sizes and styles. There is a Little Giant Electric Grinder for every need.

We also manufacture Little Giant compressed air grinders and Little Giant Electric tools and hoists.

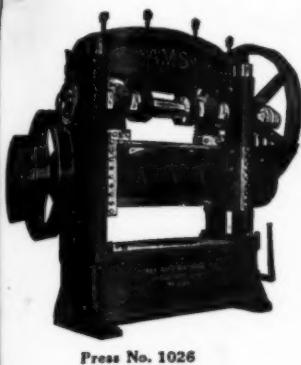
Write for Bulletins.

## Chicago Pneumatic Tool Co.

1059 Fisher Bldg.  
CHICAGO

Branches  
Everywhere

52 Vanderbilt Ave.  
NEW YORK



## PRESSES

Large or Small  
Regular or Special

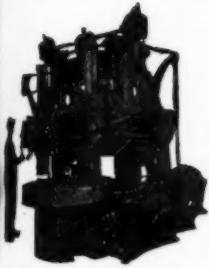
The last word in Presses is

### AMS

Look for it—  
It's your security.

**THE MAX AMS MACHINE CO.**  
Bridgeport, Conn.

## Machine Tools



We build a most comprehensive line of machine tools for every imaginable purpose, also Steam Hammers and Niles Electric Traveling Cranes.

*Write for Descriptive Circulars*

**Niles-Bement-Pond Co.**

111 Broadway, NEW YORK

Birmingham, Ala., Office—2015 First Ave. Philadelphia Office—405 North 21st St.

## "Racine" High Speed Metal Cutting Machine Eats Steel—Standard the World Over

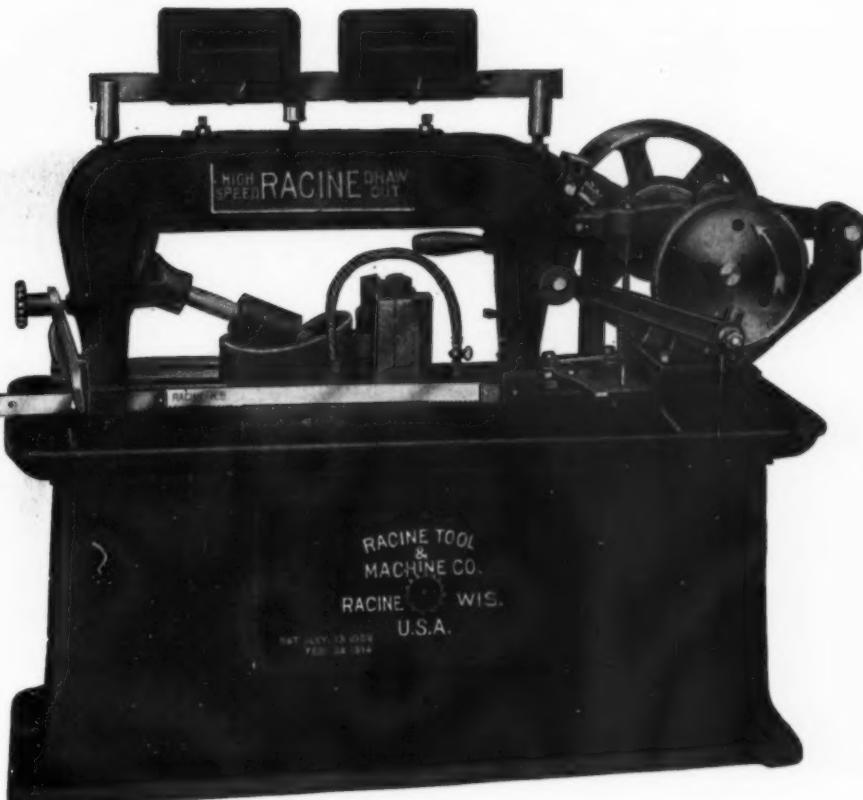
This is the only machine in the world that has an absolutely positive automatic lifting device. This feature of it is secured by patents. Its saw frame guide prevents springing. These two features combined lengthen the life of blades used on it.

Then there is the all-important fact that "RACINE" machines minimize wastage of material, cut accurately and speedily, are easy and cheap to operate and increase production.

Investigate the particulars of our offer before buying any other machine. Write for catalog MR22.

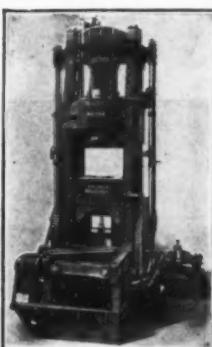
**Racine Tool & Machine Co.**

RACINE, WIS., U. S. A.



*Standard the World Over*  
USE "RACINE" H-S TUNGSTON BLADES

## Sheet Metal Working Machinery



The illustration shows Bliss Bottom Slide Drawing Press No. 764, one of the largest presses we build, weight 620,000 lbs. It will draw in depth and lift out up 42 inches. It will take a drawing punch 42 inches in diameter. It draws blanks up to 64 inches in diameter of 3/16 inch soft steel.

Bliss Toggle Drawing Presses are built in sizes to cover every requirement. There is a size adapted to your particular requirements. Write for descriptive matter.

**E. W. BLISS CO.**, 4 Adams Street,  
BROOKLYN, N. Y.  
Chicago Office: 1821 Peoples Gas Building  
Cleveland Office: Union Bank Building



## BLACK DIAMOND FILE WORKS

Twelve Medals Awarded at International Expositions.

Special Prize Gold Medal Atlanta 1895.

Our goods are on sale in every leading hardware store in the United States and Canada. Copy of Catalogue will be sent free to any interested file user on application.

**G. & H. BARNETT COMPANY**  
PHILADELPHIA, PA.

Owned and Operated by NICHOLSON FILE CO.

# "Pioneer"

## STEEL HANGER

"I've handled all kinds of hangers since I started millwrighting; but these 'Pioneer' Steel Hangers are my choice. Why? The answer's easy. I can hang them all day and alone if necessary. These old-fashioned cast-iron hangers seemed to weigh a ton around three o'clock in the afternoon. It took three of us to handle them, too. It's different now; the boss uses 'Pioneer' altogether. They're safe; and I never yet heard of a 'Pioneer' coming down — and that's a mighty good point. The difference in first cost is in favor of the 'Pioneer,' so they are preferable every way you look at them."

*Ask for our booklet  
"Transmission Data."  
It's worth reading.*

**"I'll Take the  
Steel Hanger  
Every Time"**



**STANDARD PRESSED STEEL CO.**  
PHILADELPHIA, U. S. A.





# LINK-BELT INDUSTRIAL EQUIPMENT



**Malleable Iron and Steel Buckets**

Any size, style and shape, for all classes of elevator systems. Ask for details.



**"C" Class Link-Belt**

for handling abrasive, gritty and corrosive materials. So constructed that pins cannot rock or rotate in side bars. Means longer, better service. Runs on standard sprockets. One of many types. Particulars on request.



**Link-Belt Steel Screw Conveyors**

Built in various types and sizes for handling different classes of materials. Write for details. Tell us the nature of material you wish to convey.

**THIS TRADE MARK APPEARS  
ON ALL LINK-BELT EQUIPMENT**

THE scope of Link-Belt labor saving equipment is so great that there is no line of industrial activity which cannot be made more efficient, more productive, and operated more economically, by the adoption of Link-Belt devices.

This condition was true before the war. Now the value of Link-Belt equipment to any manufacturer is infinitely greater. That equipment includes all classes of conveying and elevating machinery, electric hoists, locomotive cranes, coal and ash handling systems, mining equipment, coal storage systems, water-intake traveling screens, all types of conveying and power transmission Link-Belt, sprocket wheels, silent chain drives, etc.

We maintain a large staff of engineers at each of our plants, who will gladly render you advice and assistance in bringing your plant up to the highest possible degree of mechanical efficiency in the handling of your product, and transmission of power. Address nearest office.

## LINK-BELT COMPANY

### PHILADELPHIA

New York . . . . . 299 Broadway  
Boston . . . . . 49 Federal St.  
Pittsburgh . . . . . 150 Penn Ave.  
St. Louis, Central National Bank Bldg.  
Buffalo . . . . . 601 Ellicott Square  
Wilkes-Barre, 2d National Bank Bldg.  
Cleveland . . . . . 600 Rockwell Bldg.  
Detroit . . . . . 732 Dime Bank Bldg.  
Kansas City, Mo., 308 Elmhurst Bldg.  
New Orleans . . . . .

### CHICAGO

Seattle . . . . . Portland, Ore. . . . .  
San Francisco . . . . . 100 Market St.  
Milwaukee . . . . . 601 Ellicott Square  
Toronto, Can. . . . . 161 and 163 N. Lou Angeles St.  
Denver . . . . . Link-Belt Co., Ltd.  
Cincinnati . . . . . Link-Belt Co., Inc., 418 S. Peters St.  
Louisville, Ky. . . . . Frederick Weble, Stark's Bldg.  
Birmingham, John F. Darragh, 751 Browne, Marx Bldg.  
Whitney Supply Co., 418 S. Peters St.

### INDIANAPOLIS

776 First Ave., S.  
First and Stark Ste.  
Columbus, Ohio . . . . . 101 Main St.  
Atlanta, Ga. . . . . 161 and 163 N. Lou Angeles St.  
Link-Belt Co., Ltd.  
St. Paul . . . . . Link-Belt Co., Inc., 418 S. Peters St.



**Belt Conveyor Idlers**

Furnished in many sizes and types, with or without stands, to handle light or heavy materials.



**Link-Belt Elevator Boots**

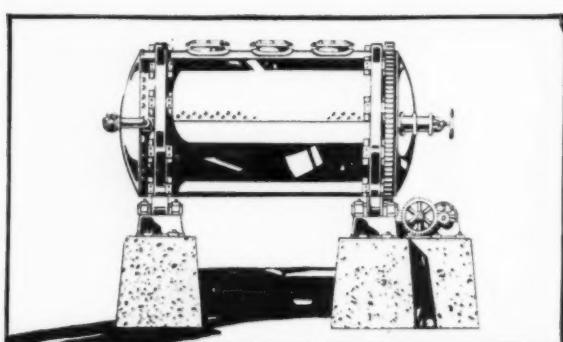
Made in various types to suit conditions.



**Ewart Detachable Link-Belt**

A good, strong, reliable form of Link-Belt for light and medium service. Adapted to a wide variety of uses.

**LOOK FOR IT. IT IS OUR PLEDGE  
OF QUALITY AND EFFICIENCY**



Bartlett &amp; Snow Rotary Percolator-Extractor

## THE RIGHT KIND OF EXTRACTION EQUIPMENT

If you are using stationary percolators or stationary extractors for extracting oil or grease, you are not using the kind of equipment which produces the most profitable results.

Rotary Percolator-Extractors produce a greater yield of grease—are more rapid—use less steam—cause a smaller loss of solvent—and require no labor for loading or dumping.

Every year more plants realize these profit producing advantages and install Bartlett and Snow Rotary Percolator-Extractors, very often removing stationary extractors to do so.

Everyone interested in the solvent extraction of oil should know the possibilities of Rotary Percolator-Extractors. We shall, without obligation, gladly furnish complete data.

### THE C. O. BARTLETT & SNOW CO.

Main Office and Works: CLEVELAND, OHIO, U. S. A.

Eastern Office: 50 Church St., New York, N. Y.



## The Life of Babbitt TRIPLED

by the use of our No. 3 (Boronic Copper Alloy), says one of the largest manufacturers of locomotives

This large concern buys our No. 3 (all metal, in shot form) in ton lots, and when asked what they use it for, they say "IN EVERYTHING." They discovered that they can increase the life of their babbitts 300 per cent. by the use of but three pounds of No. 3 to the hundred pounds of any grade of babbitt—entered in the simplest way.

BORONIC PRODUCTS deoxidize, purify, solid-cast and improve the physical structure of all metals "from gold to steel."

See our advertisements in the National Telephone Directory (Classified) of the Reuben H. Donnelly Corp. Our lists of products are filed with and can be seen at all the service stations of this corporation.

Send for our Literature and Price List NOW.  
You will be greatly benefitted if you ACT.

**American Boron Products Company, Inc.**  
READING, PENNA., U. S. A.

(Sole Manufacturers)

Foreign Distributors:  
National Alloys, Limited, London, Eng. China & Japan Trading Co., Ltd., Ltd.  
Edward Lo Bas & Co., London, Eng. Japan.  
China & Japan Trading Co., Ltd., Shanghai, China.

## Economy Features of Rubber Belt Conveyors

1. Large Capacity
2. Handle Heavy Materials
3. Speedy and Silent
4. Operate on Minimum Power
5. Involve Minimum Upkeep
6. Give Long Service

## JEFFREY RUBBER BELT CONVEYERS

Are everywhere giving a satisfactory service

Our "Century" Belts are standing the severe service of conveying Rock, Ores, Stone, Gravel, Coke, Coal and other heavy materials.

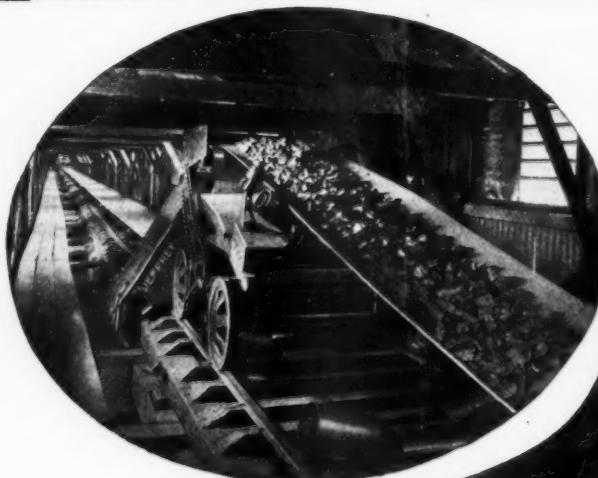
The various types of Jeffrey Trippers for automatically distributing over a given space or discharging materials at any fixed point are so designed as to occupy minimum space above the belt; operate with minimum horse-power, and insure a minimum of care and upkeep.

The shorter lengths of Flat or Troughed Belts have scored notable successes in handling economically packages, boxes, barrels, etc., and in picking and sorting conveyor service.

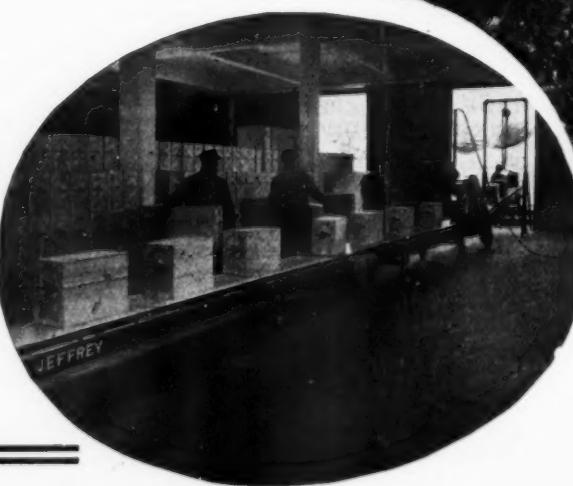
Our New Belt Conveyor Catalog No. 175-E, picturing many applications and installations, and fully illustrating their design and construction, is now off the press. Send for your copy.

**THE JEFFREY MFG. COMPANY**  
926 North Fourth Street COLUMBUS, OHIO

**Handle it Mechanically**



Handling Coal to Storage Bins in Power Plant.



A series of Light Portable Belt Conveyors handling Boxes from Warehouse to Dock. Can be driven in any section.



**WILL  
DO  
THE  
WORK  
OF  
FROM  
6  
TO  
12  
MEN**

Hundreds of manufacturers are now using the Scoop Conveyor to load and unload cars, trucks and wagons and to stack into storage piles or bins.

Ask for further information

**PORTABLE MACHINERY CO., Inc.**  
PASSAIC, N. J.

## When We Bought "Lizzie"

The Dodge man said, "Our car is too expensive for you. What you need is a Ford. But remember just this from me:—

"TAKE IT AS YOUR UNCLE HENRY HANDS IT TO YOU."

And we did.

Said the Dodgerite, "The Ford people have made not thousands but millions of these cars and they know just what is needed to get you there and back. They have cut out all else."

Simplicity is the secret of durability and efficiency.

That is why the talking machine is so popular.

In Coatesville almost every mill man has his Tin Lizzie and his Phonograph.

And both are always on the go.

Your "Uncle Billy" has done with the Freight Elevator what your "Uncle Henry" has done with the Universal car.

"YOU SEE THEM WHEREVER YOU GO  
AND THEY GO WHEREVER YOU SEE THEM."

The fact of the matter is that if a man has steam and needs a freight elevator he makes the mistake of his life if he does not go to a little trouble to find out why over 2000 big concerns like these

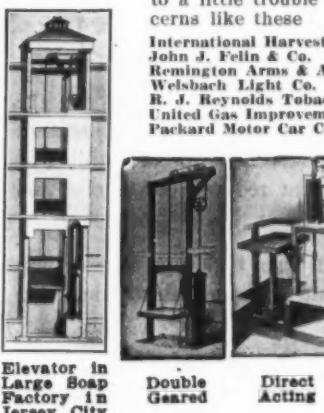
International Harvester Co.  
John J. Felin & Co.  
Remington Arms & Am. Co.  
Welsbach Light Co.  
R. J. Reynolds Tobacco Co.  
United Gas Improvement Co.  
Packard Motor Car Co.

Steinway Piano Co.  
Cluett, Peabody & Co.  
John Wanamaker  
Procter & Gamble Co.  
DuPont Powder Co.  
John Morrell & Co.  
Reading Abattoir  
United States Government  
Sears, Roebuck & Co.  
United States Steel Co.  
Miller & Hart  
D. B. Martin & Co.  
General Electric Co.  
Lowell Machine Co.  
Remington Typewriter Co.  
Consolidated Gas Co.

are so crazy to

"Hook 'er to the Biler"

**The Ridgway & Son Co.**  
COATESVILLE, PA.  
Elevator Makers to Folks Who Know



**Warsaw Elevator Company**  
T. FRANK WILHELM, Manager  
Special Attention Given to Repairs  
Office and Warehouse  
Mercer, Grant and Water Sts. BALTIMORE, MD.

**GRINDING WHEEL DRESSERS**  
of Every Description  
"HUNTINGTON" - "DIAMO-CARBO" - "SHERMAN"  
DIAMONDS  
The Desmond-Stephan Dresser Co.  
URBANA, OHIO

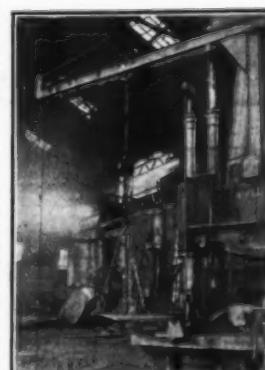
American Elevators *Built by* **AMERICAN ELEVATOR & MACHINE CO.** INCORPORATED  
LOUISVILLE KY.

**ELEVATORS** **MOFFATT MACHINERY MFG. CO.**  
HAND-BELT-ELECTRIC  
AND HYDRAULIC  
**MACHINISTS AND FOUNDERS**  
CHARLOTTE, N. C.

**OUR TRAVELING CRANES**  
will solve your conveying of material problem.  
Catalog and Information Free  
**J. G. SPEIDEL**  
READING, PA.

**Long Life Bushings In Spite of Neglect**  
**Oil-less**  
"NIGRUM" (Impregnated Wood)  
**Bushings**  
"BOUND BROOK" (Graphite-and-Bronze)  
Trade Mark Reg. U. S. Pat. Off.  
All genuine Graphited Oil-less Bushings have always been made at Bound Brook, U. S. A.  
**BOUND BROOK OIL-LESS BEARING CO.**  
Bound Brook, New Jersey  
Specialists in the manufacture of Oil-less Bushings for more than a third of a century

**W** You Get the Speed, Lift and Endurance  
WITH  
**WRIGHT**  
High Speed Chain  
Hoists  
They are doing first rate work in shops, foundries, factories and wherever a hoist can be used.  
Catalogue R-16 is ready  
**WRIGHT MFG. CO.**  
LISBON, OHIO



Handling heavy plates for punching with Wright High Speed Hoist

**W**



The picture shown above is very simple—merely a motor-truck and a concrete road;

And yet, simple as it may appear, it typifies at once the South's greatest need and greatest opportunity—the readjustment of the road surface to the new freight vehicle for the hauling of heavier loads with greater dispatch at reduced power cost and lessened wear on the road.

The above view duplicated on all main highways in the South will mean an unparalleled development in agriculture and commerce.

Public spirited citizens desiring to inform themselves on how to permanently readjust roads to meet new conditions in their respective communities may obtain such information by addressing:

**Standard Portland Cement Co.**  
BIRMINGHAM, ALA.



**DIXIE PORTLAND CEMENT CO.**  
CHATTANOOGA, TENN.

A  
Concrete  
Road  
Is  
Permanent  
—  
SAVES GASOLINE  
—  
CONNECTS  
FARM WITH CITY  
—  
NO MUD NO DUST  
—  
Write us for free copy  
"Concrete Highways"

## You Who Are About to Build

For Permanent Construction  
To Eliminate Maintenance

## Use Clinchfield Portland Cement



**CLINCHFIELD PORTLAND  
CEMENT CORPORATION**  
Sales Offices and Mills, Kingsport, Tenn.

Branch Sales Offices:

CINCINNATI, O., 1205 Union Trust Building.  
SAVANNAH, GA., 413-415 American Bank and Trust Bldg.

## Southern States Portland Cement



We produce only one grade

**THE HIGHEST  
ALWAYS UNIFORM**

Southern States Portland Cement Co.

Office and Mills—ROCKMART, GA.

## Marine "VITA" Glue

Sets and stays in seams.

Has tenacity and vitality.

For samples and prices, write to  
BINNEY & SMITH COMPANY 81 Fulton Street, New York



Welds everything in metal—cuts anything in steel or wrought iron. We can give QUICK WELDING SERVICE in our new shop. An aid to manufacturers having Government contracts. Full data on request. Write for Free Catalog.

The Imperial Brass Mfg. Co., 507 S. Racine Ave., Chicago

## Southern Minerals Corporation

Miners and Shippers of

**BAUXITE**

**MANGANESE**

**IRON**

PROPERTIES: Elizabethton, Carter Co., Tenn.

OFFICES: 20 Beacon St., Boston, Mass.

## HAVEMEYER BARS

"Every Pound Pulls"

By Using

### HAVEMEYER BAR SERVICE

YOU GET

### IMMEDIATE SHIPMENT

### OF YOUR REINFORCING STEEL

### FROM OUR NEAREST WAREHOUSE

Birmingham warehouse carries the largest stock of reinforcing bars in the South—all sizes—rounds and squares. Address Birmingham Office.

## CONCRETE STEEL COMPANY

42 Broadway, NEW YORK

Southern Office: Birmingham, Ala., Brown-Marx Bldg.

DISTRICT SALES OFFICES:  
CHICAGO, ILL. Monadnock Bldg. BOSTON, MASS. 7 Water Street. PHILADELPHIA, PA. YOUNGSTOWN, O. P. O. Box 24. SYRACUSE, N. Y. DISTRICT SALES OFFICES:  
YOUNGSTOWN. FABRICATING SHOPS AND WAREHOUSES:  
CHICAGO BIRMINGHAM PHILADELPHIA NEW YORK BOSTON  
AGENCIES AND STOCKS IN PRINCIPAL CITIES

# "BULLDOG" MINING DRILL STEEL

There are various brands of Mining and Rock Drill Steel, but there is only one "BULLDOG."

"BULLDOG" STEEL  
HOLDS ALL RECORDS

EFFICIENT  
ENDURING  
ECONOMICAL

Prompt Deliveries  
from Stock



HOLLOW and SOLID.

In ROUND, HEXAGON,  
OCTAGON, QUARTER  
OCTAGON and CRUCI-  
FORM.

If you want the Best  
It is "BULLDOG"

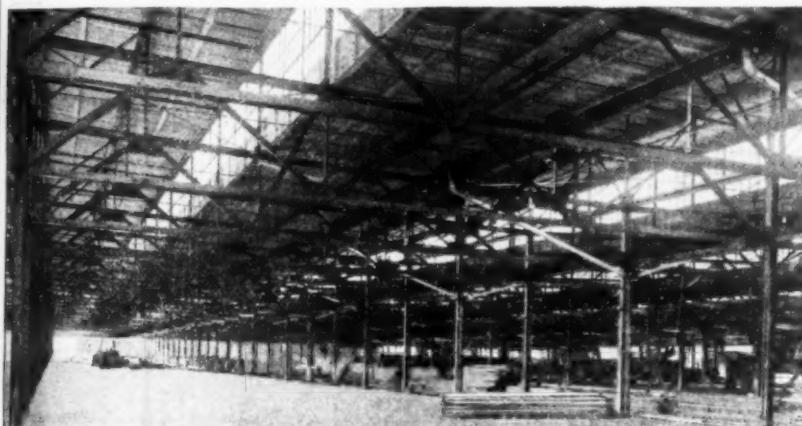
MADE-UP STEELS in all standard sizes a Specialty. Lengths Shanked, Collared and Bitted from 12" to 12'. Send for our prices.

Made Only by the

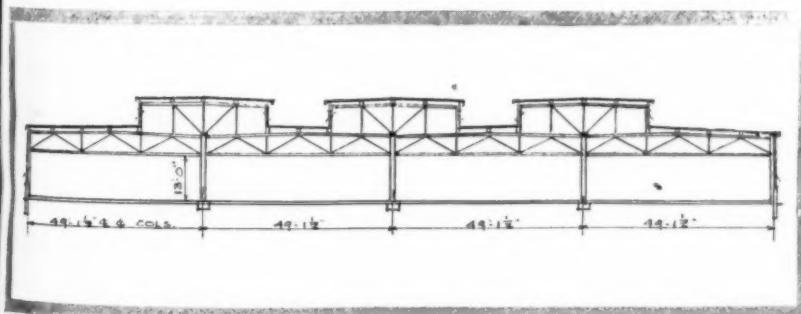
**INTERNATIONAL HIGH SPEED STEEL COMPANY**

Works: ROCKAWAY, N. J.

99 Nassau Street, NEW YORK



The size of buildings based upon this unit is unlimited. The bays in Austin No. 3 Standard are 50 ft. wide by 20 ft. long, and the full unit width is 100 ft. This building covers 27 acres of floor-space, 12 acres of which are No. 3 type.



Cross-section showing Austin No. 3 Standard used for covering large areas, as illustrated above.

## 27 Acres Under One Roof in 90 Working-Days

"Somewhere in the U. S. A." this big building—27 acres of floor space—is housing urgent production. It is a typical example of Austin speed in factory construction. 120,000 sq. ft. was completed in 30 working-days; in 55 days, 12 acres of building was ready, and in 90 working-days the entire 27 acres all under one roof was turned over to the owners.

Twelve acres are of Austin No. 3. The unit is 100 ft. wide with clearance of 13 ft. or more as required. Building widths can be increased in multiples of 50 ft. and lengths in multiples of 20 ft. Level suspension for shaft hangers is provided.

Send for the *Austin Book of Buildings*, our latest catalog which illustrates and describes the ten Austin Standard types of buildings. Want action? Wire Austin.

### THE AUSTIN COMPANY

*Industrial Engineers and Builders*

For U. S. A. and Canada, Address Nearest Office:  
CLEVELAND - - - 1611 Euclid Ave., Eddy 4500  
NEW YORK - - - 217 Broadway, Barclay 8886  
PHILADELPHIA - 1026 Bulletin Bldg., Spruce 1291  
WASHINGTON - 1313 H St. N. W., Franklin 6120  
INDIANAPOLIS 712 Merchants' Bank Bldg., Main 6428  
PITTSBURGH - - - 493 Union Arcade, Grant 6071  
DETROIT - - - 1452 Penobscot Bldg., Cherry 4466  
CHICAGO 1374 Cont. Com. Bank Bldg., Wabash 5801  
For Foreign Business: American Steel Export Company, Woolworth Building, New York

(55)

**AUSTIN** STANDARD  
FACTORY-BUILDINGS

# Topping Brothers

122 Chambers Street  
NEW YORK

Our stock of **HEAVY** and **MARINE** Hardware is  
the largest of its kind in this country.

Let us figure on your requirements of

BOLTS, NUTS, RIVETS, CHAINS  
TACKLE and CHAIN BLOCKS  
TREENAIL AUGERS  
SHACKLES  
RIGGER SCREWS

All Kinds of JACKS, SHIP CLAMPS  
SHIP and RAILROAD SPIKES  
CABIN HARDWARE  
TREENAIL WEDGES  
CAULKING TOOLS

CARGO BOOM and MAST FITTINGS  
CONTRACTORS' SUPPLIES

BESSEMER

# STEEL

OPEN HEARTH

BILLETS, BLOOMS, SLABS, SHEETS, BARS

*"Pioneer" Pig Iron*

*Merchant Bars, Shapes, Skelp, Shafting,  
Old Rail Bars, Special Sections,  
Mine Rails, Twisted Squares*

*Merchant Bar Iron, Spikes, Bolts, Nuts,  
Washers, Turnbuckles*

*Standard Black and Galvanized "REPUBLIC PIPE" Line Pipe, Drive Pipe, Tubing and Casing*

*Boiler*

**SHEARED PLATES**

*Flange*

*Tank*

## Republic Iron & Steel Company

General Offices: Republic Building, Youngstown, Ohio

Birmingham New York Cleveland Cincinnati Detroit Chicago Buffalo St. Louis  
Pittsburgh Philadelphia Dallas San Francisco

# CAMDEN



## COMPARE

The contents of the two hands. You want your forging order completed promptly? Then place your order with us and we will make a right-handed job of the rough turning

**CAMDEN FORCE CO.**  
**CAMDEN, N.J., U.S.A.**



# STEEL

WHEN YOU WANT IT

# \$15.45

Is saved on every thousand rivets driven by making your rivet sets from the new

## VICTORY STEEL No. 29

driving 5000 or more rivets per set on every-day work before renewal or replacement as against 150 per set made from ordinary Carbon Steel.

If this saving of \$15.45 on every thousand rivets driven interests you, we expect to hear from you, and our tip to you is to do it soon, because rivet sets made from "Victory 29" are

**Century Steel Works**  
Poughkeepsie, N. Y.

**Aborn Steel Company, Inc.**  
34 Clarke St., New York, N. Y.

PHILADELPHIA, PA.  
269 Drexel Building

BUFFALO, N. Y.  
520 Marine Bank Building

ROCHESTER, N. Y.  
133 Andrews Street

176



# OPEN HEARTH QUALITY STEEL BARS

## For Manufacturing Purposes

We make all grades of steel to meet various trade requirements, such as Dead Soft Welding and Forging, Threading or Bolt Stock, Soft and Medium Merchant or Machine Steel, Soft Standard, Medium Hard, and High Carbon Steel Bars.

ALSO  
**CONCRETE (ROLLED IN ACCORDANCE WITH MANUFACTURERS STANDARD SPECIFICATIONS)**  
STEEL BARS FOR REINFORCING CONCRETE  
COLD TWISTED SQUARE BAR



Cold Twisted Squares, Plain Squares, and Plain Rounds.

We make soft, medium and hard or high carbon concrete bars, rolled from new open-hearth steel billets, which we produce from high-grade pig-iron, made in our own blast furnace.

Can furnish in any lengths specified from 1 to 60 feet.

Please let us hear from you when in the market

**GULF STATES STEEL COMPANY**  
General Sales Offices

Works  
ALABAMA CITY, ALA.

BIRMINGHAM, ALA.

# MERCHANT BAR IRON

— FOR —

## Shipbuilding, Dry Dock and Other General Work

We Invite Your Inquiries and Specifications

—  
The Milton Manufacturing Company  
MILTON, PENNSYLVANIA

# MIDVALE EXTRA HIGH SPEED STEEL

is a superior product because it has been developed for something more than the mere sale for profit; it has been developed to meet the increasingly exacting demands of our own shops for a steel that would stand up under the most severe service conditions.

Complete stocks carried at New York, Boston, Chicago, Philadelphia, Cleveland and San Francisco. Any standard size not in stock can be manufactured promptly.

**Midvale Steel and Ordnance Company**

**Cambria Steel Company**

General Sales Office:

**Widener Building, Philadelphia, Pa.**

District Sales Offices:

Atlanta	Boston	Chicago	Detroit	Cincinnati	Cleveland	Seattle
New York		San Francisco		Philadelphia	St. Louis	
				Pittsburgh		
		Salt Lake City				

**"We Want You to Become Better Acquainted with Us" Series—No. 13**

# Jones & Laughlin Steel Company

## General Offices:

Jones & Laughlin Building  
PITTSBURGH

## MANUFACTURERS OF

# VARIOUS STEEL PRODUCTS

## WORKS:

South Side Works	Keystone Works
Eliza Furnaces & Coke Ovens	Soho Works
Aliquippa Works	

## BRANCH OFFICES:

Boston	Buffalo	Chicago
Cincinnati	Cleveland	Detroit
New York	Philadelphia	San Francisco
St. Louis	Washington	

# WHITAKER-GLESSNER COMPANY

LARGE PRODUCERS & MANUFACTURERS OF  
STEEL & STEEL PRODUCTS

General and Executive Office  
Wheeling, W. Va., U.S.A.

## Mills and Factories

Portsmouth, O.  
Wheeling, W. Va.  
Martins Ferry, O.  
Beech Bottom, W. Va.

## Stores and Warehouses

New York	Chicago
Philadelphia	St. Louis
Kansas City	Minneapolis
Chattanooga	Richmond

Representatives in  
Washington, D. C., and other  
principal cities

# TRUMBULL

## Open Hearth

Ingots, Blooms, Billets, Slabs, Sheet Bars

Blue Annealed Steel Sheets

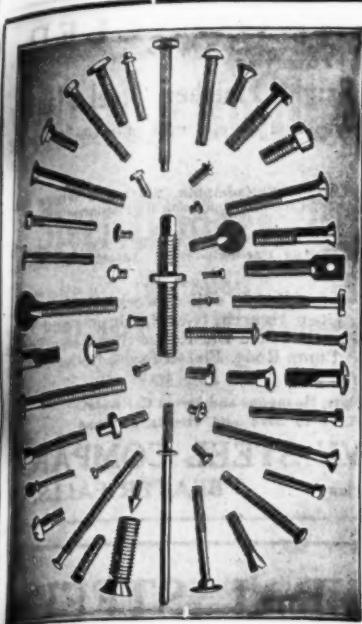
Black and Galvanized Sheet Steel

Galvanized and Painted Formed Roofing Products

Coke Tin Plate

Hot and Cold Rolled Strip Steel

**THE TRUMBULL STEEL COMPANY**  
GENERAL OFFICE: WARREN, OHIO



**Standard and  
Special Machine  
SCREWS**

MANUFACTURERS OF

Rivets, Studs, Threaded Wires,  
Stove Bolts,  
Sack Bolts,  
Closet Screws,  
Bulb Wires,  
Safety Set Screws,  
Square Iron Nuts

Special Screws and Rivets  
made to order. We please  
those discriminating manufacturers  
who require something better  
than is usually supplied.

Get our prices, submit sample  
and advise quantity desired.

*Catalog for the Asking*

**THE PROGRESSIVE  
MANUFACTURING CO.**  
TORRINGTON, CONN.

Yes, we are **SPRING SPECIALISTS** to  
The American Manufacturer

**SPRINGS OF STEEL, BRASS, MUSIC WIRE,  
PHOSPHOR-BRONZE, Etc.**



SEND FOR CATALOGUE

**RAYMOND MFG. CO., Ltd.** CORRY, PA.

**IMMEDIATE SHIPMENT** FROM STOCK

Machine Bolts, Lag Screws, Washers, Bolt Ends, Nuts, Turnbuckles,  
Rivets, Drills, Taps, Tools, Etc.

**WOOD AND MACHINE SCREWS**

Brass, Iron or Galvanized

**IRON, STEEL AND BRASS SPECIALTIES**

Contractors', Railroad and Shipbuilders' Tools and Supplies

*My Catalogue is Yours for the Asking*

**HENRY FRANK, Jr.** - - 372-374 Hudson St., New York City

**100%**

**BAR IRON  
BOLTS  
GALVANIZING  
NUTS - SCREWS  
SPIKES**

ST. LOUIS SCREW CO.

ST. LOUIS

**HOT GALVANIZING**  
MEANS BEST IN QUALITY

ANGLES  
CHANNELS  
BARS  
SPIKES  
CHAIN  
BOLTS  
NUTS  
NAILS

**CAPACITY**  
200 TONS  
PER DAY

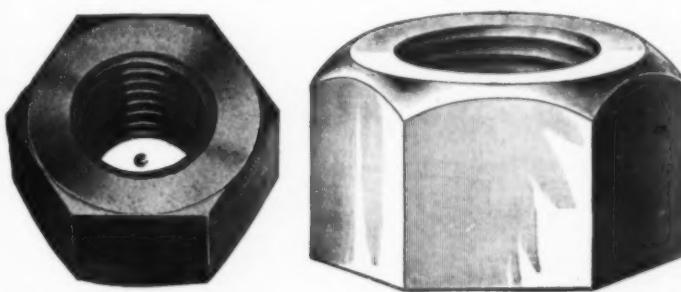
WASHERS  
CLICH RINGS  
CROSS ARM BRACES  
HOOP and  
BANDS  
CASTINGS  
ROUNDS  
PLATES

No tapping necessary on thread of bolts.

Special arrangements for prompt delivery  
of material used in the construction of  
wood and steel ships

*Estimates furnished upon request*

**Hanlon-Gregory Galvanizing Company**  
24th STREET and A. V. R. R.  
PITTsburg, PENNA.



**EMPIRE  
BOLTS & NUTS**

Are meeting satisfactorily  
exacting requirements

*Our Catalogue May Help You*

*Write For It*

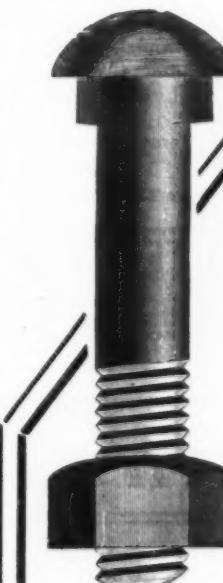
**Russell, Burdsall & Ward  
Bolt & Nut Co.**

PORT CHESTER, NEW YORK

Western Office: Continental & Commercial Bank Building, Chicago, Ill.

Branch Works: Rock Falls, Ill.

**MARYLAND BOLT CO.**



MANUFACTURERS  
OF

**BOLTS**

— ALL KINDS —

Machine Drift  
Carriage Stud  
Track Structural

LAG SCREWS, RIVETS AND NUTS

**R. C. HOFFMAN & CO., Inc.**

*General Sales Agents*

Office  
Continental Building  
Baltimore, Md.

Plant  
Curtis Bay  
Baltimore, Md.

## QUALITY AND SERVICE THAT IS UNEQUALLED

PHILADELPHIA WAREHOUSE



From the  
World's Largest Bright Finished Steel Plant

SERVICE—A large stock is carried at our mill and the following warehouses:

OFFICES AND WAREHOUSES.  
New York, 460-462 Washington St., Philadelphia, Ninth and Willow Sts., Cincinnati, Spring Grove Ave.; Chicago, Jefferson and Monroe Sts.

SALES OFFICES:  
Buffalo, White Bldg.; Detroit, Mich., 69 Jos. Campau Ave.; Boston, Milk St.; Galveston, Tex., Texas Carnegie Steel Association; Brown Bros., Ltd., London, E. C.

QUALITY—The best material, handled by expert workmen and always guaranteed. Bessemer, Open Hearth, Nickel, Chrome and Vanadium Steel. Elevator Guides, Cold Die-Rolled Steel; also Turned and Polished Shafting. Pump Rods, Piston Rods, Roller Bearing Rods and Screw Steel.

Rounds, Squares, Flats, Hexagons and Street Car Axles.  
Special Shapes. True to Size and Highly Polished

UNION DRAWN STEEL COMPANY

Main Office and Works

BEAVER FALLS, PA.



## BRIER HILL ORE

Hundreds of thousands of Tons of Ore are consumed annually in our Blast Furnaces

BLOOMS—FORGING & RE-ROLLING BILLETS—SLABS  
SHEET & TIN BAR—PLATES—SHEETS—ETC.

THE BRIER HILL STEEL COMPANY  
YOUNGSTOWN, OHIO



Installation of drawer type core ovens

Complete Fdy. Plants  
Cranes of all Types



Send for Catalog 121

WHITING  
FOUNDRY EQUIPMENT CO.  
HARVEY-ILL. U.S.A.  
CHICAGO SELENE

Perfect Cores are a big item in cutting foundry costs.  
Use Whiting Ovens and obtain uniform heating and regulation. Years of experience are back of our designs.

Send for Catalog 121

## Core Ovens

## STRUCTURAL STEEL ORNAMENTAL IRON Snead Architectural Iron Works

LOUISVILLE, KY.

Immediate Shipments of All Standard and Bethlehem Shapes

## DIETRICH BROTHERS

Structural and Ornamental Iron and Steel Works

Large Stock of Standard and Bethlehem Shapes

CONCRETE REINFORCEMENTS  
BALTIMORE, MD.

## BELMONT IRON WORKS

DESIGN  
FABRICATE  
ERECT  
STEEL STRUCTURES

N. Y. OFFICE:  
32 BROADWAY

MAIN OFFICE AND WORKS:  
PHILADELPHIA, PA.

RIDGE SHOPS:  
EDDYSTONE, PA.

INTERNATIONAL STEEL & IRON CO.

EVANSVILLE, INDIANA

STANDARD IRON AND STEEL BETHLEHEM  
CARRIED IN WAREHOUSE STOCK FOR IMMEDIATE SHIPMENT  
STEEL FOR BRIDGES AND BUILDINGS Fabricated Promptly

## WELLER MFG. CO.



Designers and Manufacturers of  
ELEVATING, CONVEYING AND POWER  
TRANSMITTING MACHINERY

## Cement Mill Machinery

Dust-tight Elevator Casings, Pelt and Screw  
Conveyors and Power Transmitting Equip-  
ments for all parts of cement mills.

## DEVERELL, SPENCER & CO.

Southeastern Sales Agents

GARRETT BUILDING

BALTIMORE, MARYLAND

## Steel Castings

Weighing from 1 lb. to 300 lbs. each

Suitable for Dogs, Clamps, Wheels, Pinions and other castings  
where strength is required.

Used almost exclusively for Automobile Work.

Quick deliveries.

Your inquiries solicited.

Crucible Steel Casting Co., Lansdowne, Del. Co., Pa.

## Malleable Iron Castings

of Highest Quality

Annual Capacity 25,000 Tons.

Send Blueprints or Samples for Estimates

MISSOURI MALLEABLE IRON CO.  
EAST ST. LOUIS, ILL.

Castings of all descriptions furnished

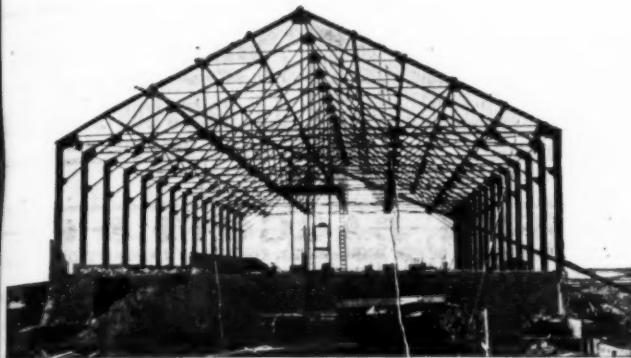
# VIRGINIA BRIDGE & IRON CO.

## Steel Bridges, Buildings, Etc.

Roanoke      Memphis      Atlanta      New Orleans  
Denver      Montgomery      Charlotte  
Works: Roanoke—Memphis

Beet Sugar Factory Building.  
Amalgamated Sugar Company.  
Smithfield, Utah.

One of Several Duplicate Factories for  
which Virginia Bridge has furnished the  
Steel Work to the Dyer Co., Cleveland.



Structural  
Steel  
Shapes

# THE PHOENIX IRON CO.

Works:  
PHOENIXVILLE, PA.

Manufacturers of Open Hearth Steel

DESIGNS AND ESTIMATES FURNISHED

ST. LOUIS  
Pierce Building

BALTIMORE  
Con. Trust Building

Other Offices  
New York  
Boston  
Rochester

# VINCENNES BRIDGE CO.

BRIDGES, STRUCTURAL WORK

VINCENNES, IND.

Nashville, Tenn.

Address nearest office

Muskogee, Okla.

**RICHMOND**  
**STRUCTURAL**  
**STEEL CO.**

Design      Manufacture      Erect  
**STEEL and IRON**  
FOR BUILDINGS AND BRIDGES  
Estimates Cheerfully Furnished  
RICHMOND and NORFOLK, VA

**CHAMPION BRIDGE COMPANY**  
WILMINGTON, OHIO  
MANUFACTURERS OF  
Bridges and Structural Work  
Southern Office—Atlanta, Ga.

## STEEL CONSTRUCTION

Buildings and Bridges, Oil and Water Tanks, Standpipes, Riveted Pipe  
Smoke Stacks, High Pressure Tanks, for Air, Gas and Liquids.

WM. B. SCAIFE & SONS CO.      PITTSBURGH, PA  
New York Office, 26 Cortlandt St.

ELECTRIC FURNACE STEEL CASTINGS  
STEEL MILL EQUIPMENT  
**TREADWELL ENGINEERING CO.**  
EASTON, PA.

# CHESAPEAKE CRANES

## Electric Traveling Cranes

Most Rugged Crane Built

QUICK DELIVERY

## STEEL STRUCTURES

# CHESAPEAKE IRON WORKS

BALTIMORE, MD.

# THE ALABAMA COMPANY

BIRMINGHAM, ALA.

Manufacturers of Pig Iron

**"CLIFTON" BRAND**

Silicon ..... 1% to 4%  
Sulphur uniformly low.  
Phosphorus ..... 40% to 70%  
Manganese ..... 1% to 2%

An ideal iron for carwheel's  
cylinder castings and all  
high class work.

**"ETOWAH" BRAND**

Silicon ..... 1% to 4%  
Sulphur uniformly low.  
Phosphorus ..... 70% to 1%  
Manganese ..... 40% to 70%

A dependable iron for all  
classes of foundry  
work.

Producers of Foundry Coke and Smithing Coal

**BROOKWOOD BRANDS**

**COKE**

High Carbon, low Ash and low  
Sulphur, good structure and  
uniform quality.

**SMITHING COAL**

Washed and sized, low Sul-  
phur and low Ash. For heavy  
forge work it has no equal.

*Let us have your inquiries*

# ALLEGHENY STEEL COMPANY

Manufacturers of  
STEEL AND CORROSION RESISTING ALLEGHENY IRON PLATES, SHEETS  
BOILER TUBES AND PIPE

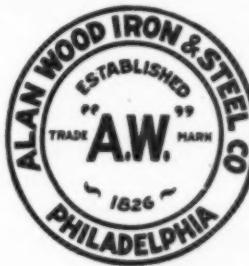
Ask about Allegheny Iron

Oliver Building PITTSBURGH, PA

Works: BRACKENRIDGE, PA

NEW YORK  
BOSTON

SAN FRANCISCO  
DALLAS



MANUFACTURERS OF

DIAMOND AND RIBBED PATTERN

**Rolled Steel Floor Plates**

SIZES FURNISHED ON APPLICATION

GENERAL OFFICES:

Widener Bldg., Philadelphia

A2

## EXCELSIOR Wire Products

Backed by a Generation of Manufacturing Experience

Riddles	Wire Cloth
Wire Lath	Wire Fence
Wire Rope	Sand Screens
Machine Guards	

### WRIGHT WIRE COMPANY

WORCESTER, MASS., U. S. A.

Branch Offices and Warehouses  
BOSTON NEW YORK PHILADELPHIA CHICAGO  
TULSA SAN FRANCISCO



## HARDWARE CLOTH

### "Perfect" brand—Galvanized

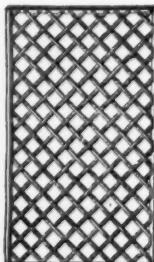
A rust-proof cloth for fire-proof construction—for use in drying machines—for lining corn cribs.

Made of steel wire—uniform in mesh, perfectly smooth and galvanized after being woven. This solders the joints and prevents spreading.

Catalog mailed on request.

Manufacturers of Mining Screens, Screen Cloth, Fly Screens, Window Guards, Poultry Netting, Coin Guards, Grilles, Iron Fence, Benches, etc.

The Ludlow-Saylor Wire Co. St. Louis, Mo.



## WINDOW GUARDS

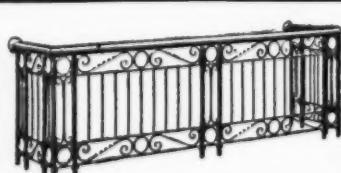
It costs very little to protect your glass from breakage, to say nothing of preventing burglars from entering. Our guards afford an effective measure of protection.

Bank and Office Railing, Elevator Cars and Enclosures, Fire Escapes

THE FRED. J. MEYERS MFG. CO.  
HAMILTON, OHIO



"ATLANTA" Open Hearth Steel Products Include:  
WIRE NAILS AND STAPLES, GALVANIZED WIRE, BRIGHT NAIL WIRE, ANNEALED BALING WIRE, GALVANIZED BARBED WIRE, HOOPS FOR COOPERAGE & BALING PURPOSES, BARS FOR REINFORCING CONCRETE  
We are manufacturers and are equipped to give you prompt service. We solicit your inquiries with specifications.  
Atlantic Steel Company, Atlanta, Ga., U. S. A.  
Cable Address, "Ascolanta, Atlanta, Ga."



## Veranda and Balcony RAILINGS

Marquis, Stairways, Fire Escapes, Window Guards, Metal Shingles. All kinds of Ornamental and Builders' Iron Work. Write for Estimates and Catalog of Complete Line.

Chattanooga Roofing & Foundry Co.

Chattanooga, Tenn.

Your Products Exhibited  
in the

### BUILDERS' EXCHANGE

BALTIMORE, MD.

Will give you results in actual business. Exhibited on ground floor.  
Write for information.

## A Large Percentage of Our Output

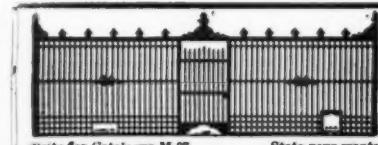
Is now devoted to direct Government orders. These are "Win the War First" orders, but so long as we are permitted we are devoting the balance of our facilities to consideration and filling of civilian orders.

THE NATIONAL SAFE CO. CLEVELAND  
U. S. A.

"All Grades of Wire Cloth Made of All Kinds of Wire"

**WIRE** TRADE JERSEY MARK **CLOTH**  
Wire Lath Wire Netting Wire Screening Wire Fencing Wire Wire  
OUR EXTENSIVE FACILITIES ENABLE US TO EXECUTE LARGE ORDERS PROMPTLY AT LOW PRICES  
ROEBLING WIRE USED IN ALL OUR PRODUCTS

THE NEW JERSEY WIRE CLOTH COMPANY  
MAIN OFFICE, TRENTON, NEW JERSEY



Write for Catalogue M-27. State your wants.

We are Manufacturers  
**BANK AND OFFICE RAILINGS**  
Plate and Ornamental Work of all Descriptions  
**J. E. Bolles Iron & Wire Works**  
DETROIT, MICH.

## DUFUR, BAGGOTT & CO.

BRASS AND STEEL WIRE WORK OF EVERY DESCRIPTION

Absolute Prompt Delivery.

Bank Work Elevator Enclosures Elevator Cabs Counter Railings  
Wickets Guards Partitions Skylight Protectors, Etc.  
403 North Paca Street BALTIMORE, MD.

**Dufur & Co.**  
309 N. HOWARD ST.  
BALTIMORE, MD.  
MANUFACTURERS OF  
IRON AND WIRE BANK WICKETS,  
RAILINGS AND WINDOW GUARDS



## Hires Turner Glass Company

Southern Headquarters—WASHINGTON, D. C.

Plate, Window,  
Ornamental,  
Beveled Plate

## GLASS

Patent "All Glass"  
Store Fronts  
Solid Wire Glass  
Skylight Glass

NIAGARA GALVANIZED WALL TIES  
Also veneer ties, 12" Ties and Wall Plugs  
Write at Once for Exceptionally Low Prices.  
NIAGARA FALLS METAL STAMPING WORKS  
Hardware Specialties

Folder 87M ON REQUEST  
Niagara Falls, New York, U. S. A.

## TOCH BROTHERS

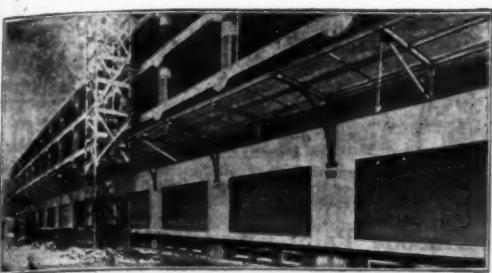
ESTABLISHED 1848  
INVENTORS AND MANUFACTURERS OF



TECHNICAL PAINTS, ENAMELS,  
VARNISHES, ETC.

320 FIFTH AVENUE :: :: NEW YORK

WORKS: NEW YORK LONDON, ENGLAND TORONTO, CANADA



72 Interlocking Slat Steel Doors installed in Pennsylvania Railroad Freight Station, Philadelphia, Pa. William K. Cookman, Architect. Turner Concrete Steel Co., Contractors.

## Edwards Rolling Steel Doors Will Protect Your Buildings

From fire and the contents from theft. They are made of heavy special cold rolled steel, bright or galvanized. Patented Spring Release Mechanism causes doors to close automatically in case of fire. Doors have been designed and successfully operated for openings of all sizes up to 40 feet wide and over 100 feet high.

Our Engineering Department will gladly submit designs and specifications to fit your special needs.

### The Edwards Manufacturing Co.

Lester G. Wilson, Consulting Engineer  
411-431 Culvert Street

CINCINNATI, OHIO

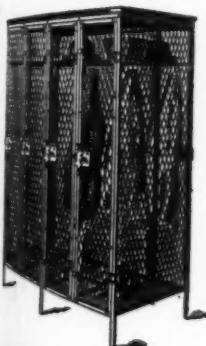


The World's Largest Manufacturers of Metal Roofing, Metal Shingles, Metal Spanish Tile, Metal Ceilings, Metal Garages, Portable Buildings, Metal Lockers, Metal Shelving, Rolling Steel Doors, Partitions, Etc.

Section of Corrugated Sheet

## METAL LOCKERS OF EVERY DESCRIPTION

Steel Equipments for Hotels, Restaurants, Hospitals, Clubs, R. R. Offices, Yachts & Ships



Machine Guards  
Steel Kitchen Shelving  
Steel Linen Closet Shelving  
Plate Warmers  
Silver Cabinets  
Kitchen Bins  
Vegetable Lockers  
Mess Lockers  
Wire Mesh for Ships

Ornamental Iron Works  
Brass Work  
Elevator Enclosures  
Collapsing Gates  
Auto Tire Racks  
Bank Vault Boxes  
Steel Specialties  
Window Guards

### STEEL SHELVING

### DEXTER METAL MFG. CO.

Successors to MERRITT & CO.  
CAMDEN, N. J.

WM. A. PARENT, General Manager

## MEDART STEEL LOCKERS

For factories, foundries, coal mines and all industrial institutions.

Write for catalog "A-5"

### FRED MEDART MFG. CO.

St. Louis, Mo.

THE HARFORD TALC CO., Inc.  
MINERS AND MANUFACTURERS OF  
TALC PRODUCTS

1612 N. PAYSON ST.  
BALTIMORE, MD.  
TALC FOR PULVERIZING  
METAL WORKER and  
ROLLING MILL CRAYONS  
CUBES BLANKS



Our Resources  
Have Been Pledged  
100% Strong  
to the  
WAR PROGRAM

To Manufacturers  
Requiring Quality Coke Tin  
Plates for Government Essentials  
including containers for  
food products—our entire production  
of Liberty Coke Tin  
Plate is at your service.

*United Effort Must Win*

**The Liberty Steel Company**  
Offices and Works  
WARREN, OHIO

## AMERICAN ENAMELED BRICK &amp; TILE COMPANY

"Manufacturers of Enamed and Fire Brick"

*Highest Quality*

Prices and samples submitted upon request.

American Enamed Brick & Tile Co.  
52 Vanderbilt Avenue  
New York

## Building Tile — Sewer Pipe — Fire Clay

Fireproofing, Fire Clay Flue Lining, Stove Flue Pipe and Tops, Thimbles, Wall Partition Tile, Farm Drain Tile, Fire Brick and Clay, Sewer Pipe, Wall Coping, Silo Blocks, etc.

WRITE US FOR DETAILS

OCONEE BRICK & TILE CO. MILLEDGEVILLE, GA.  
Manufacturers of Clay ProductsFIRE CLAY SEWER PIPE, FLUE LINERS  
and WALL COPING

Write for Catalogue and Discounts

Owensboro Sewer Pipe Co., Owensboro, Ky.

"NATIONAL MOSAIC TILE COMPANY"  
MOBILE, ALABAMA

Manufacturers of high-grade Spanish Cement floor tile. The result of superior workmanship, Durable, Economical, Ornamental and Sanitary. Write us for further information.

FOR THOSE WHO CONSIDER BOTH QUALITY AND PRICE  
**V-A-TEX** Mingled Shades Texture Brick  
Write us for details—we make all grades of brick  
GLASGOW CLAY PRODUCTS COMPANY, 120 Broadway, NEW YORK  
Phone, Rector 6664 Works: Glasgow, VirginiaBIRMINGHAM SLAG COMPANY  
BIRMINGHAM Jefferson County Bank Building ALABAMA  
— Write US About —  
Crushed and Sized "BASIC" Slag  
ROAD BUILDING REINFORCED CONCRETE CONSTRUCTION ROOFINGIMPERIAL ROOFING TILES  
MADE BY  
**LUDOWICI-CELADON COMPANY**  
Write for Literature and Prices  
GENERAL OFFICES Monroe Building CHICAGO, ILL.

## MORTAR COLORS

The Strongest and Most Economical in the Market



One half the amount of our Mortar Colors will do the work of any other, and they are unsurpassed in strength, fineness and body.

Write for samples and quotation.

We manufacture a superior grade of Red Oxide of Iron Paint for Railroad Cars, Bridges, Barns, Fences, Etc.



Chattanooga Paint Co., Chattanooga, Tenn.

Brookhaven Pressed Brick & Mfg. Co. Brookhaven, Miss.  
ALL COLORS FINEST FACE BRICK PRICES RIGHTBRICKS—TILES—FIREPLACES  
Every Kind—Impervious—Special Designs  
B. MIFFLIN HOOD BRICK CO. Atlanta, Ga.Red and Buff Dry Pressed Brick, Common Building Brick  
GEORGIA-CAROLINA BRICK CO. HOWARD H. STAFFORD, Pres. AUGUSTA, GA.IF YOU WANT  
To get in touch with some Extra Contract Work  
ADVERTISE IN THE  
Southern Shops Seeking Contract Work  
Department  
RATES ON APPLICATION.  
Manufacturers Record Baltimore, Md.Impervious Face Brick  
"Ratine" "Cravenette"  
Common Building Brick  
W. E. Dunwoody, President  
STANDARD BRICK COMPANY Macon, Ga.Asher Fire Proofing Co.  
Southern Building Washington, D. C.Hollow Tile  
Sewer Pipe  
Drain TileWe make a specialty of Hollow Tile  
for Dry Kilns  
We do Hollow Tile and Reinforced  
Concrete Construction.IT IS TIME TO THINK ABOUT  
A tight roof on home and barn for the coming winter.

## CORTRIGHT METAL SHINGLES

Give permanent protection against the elements—and they're fireproof. We have stock on hand and can make prompt shipment of all styles—Red Painted Tin, Green Painted Tin, Galvanized Tight Coat and Galvanized Tin.

Act now while weather conditions are favorable.

CORTRIGHT METAL ROOFING CO.  
PHILADELPHIA PENNA.TIN PAINTED METAL SHINGLES GALVANIZED  
With Improved "Lock That Locks." Watertight—Fireproof—Durable—Economical  
Best and Cheapest Made by  
The Hyndman Roofing Co. Cincinnati, Ohio

## MARKS of STABILITY



An honest desire to make better galvanized sheets resulted in the introduction of Apollo Best Bloom Galvanized Sheets. These sheets are everywhere recognized as the standard of quality.

APOLLO-KEYSTONE Galvanized Sheets, with a base of copper steel, give still greater assurance of durability, service and resistance to corrosion.

## American Sheet and Tin Plate Company

General Offices: Frick Building, Pittsburgh, Pa.

DISTRICT SALES OFFICES:

Chicago Cincinnati Denver Detroit New Orleans New York Philadelphia Pittsburgh St. Louis  
Export Representatives: UNITED STATES STEEL PRODUCTS COMPANY, New York City.  
Pacific Coast Representatives: UNITED STATES STEEL PRODUCTS COMPANY, San Francisco, Los Angeles, Portland, Seattle.

VENDOR

## Confidence

The "Vendor" business is founded on confidence. Confidence in your integrity; Confidence that you would appreciate fair dealing; Confidence that you would welcome honest goods; Confidence that our products rank the highest; Confidence in their ability to always give satisfaction.

Today our business methods are admittedly above criticism, and our products are recognized as the best obtainable of their class.

Over forty of the leading Roofing Slate Quarries make "Vendor" Service. May we serve you? Write us.

**VENDOR SLATE CO.**  
INCORPORATED  
BANGOR, PENNSYLVANIA

Largest Shippers of Roofing Slate in the World

You know what  
**STEEL**  
is famous for—  
**STRENGTH**



You know what  
**ASPHALT**  
is famous for—  
**MOISTURE  
RESISTANCE**



You know what  
**ASBESTOS**  
is famous for—  
**FIRE  
RESISTANCE**



## Steel and Asphalt and Asbestos

are combined in

# Asbestos Protected Metal Roofing and Siding

Dugouts roofed with steel; trench-helmets; armored tanks; great bridges, etc.—all these testify to Steel's wonderful combination of strength with lightness.

And there is no need to emphasize the waterproofing value of Asphalt, and the wonderful protection against the elements afforded by Asbestos.

If you were asked to pick any number of Nature's own materials from which to make a Roofing and Siding to best resist the slow ravages of the elements, you would naturally choose Steel, Asphalt and Asbestos.

That is exactly what has been done in producing APM (Asbestos Protected Metal). And their naturally protective qualities have been *added to* by the manner of their combination. The Steel is hermetically sealed in Asphalt; on both sides and all edges of which is a covering of Asphalt-impregnated Asbestos; all completely enveloped within a tough, heavy waterproofing coating.

Hundreds of plants, large and small, scattered all over the world, testify to the success-in-service of APM, under difficult conditions of weather exposure, fire-risk, acid fumes, dampness (even salt-air dampness). Bulletin 557 fully describes APM.

**Aspromet**  **Company**  
Pittsburgh FIRST NATIONAL BANK BUILDING  
U.S.A.

Canadian Asbestos Co., MONTREAL, CANADA

Dock House, Billiter St., LONDON



## Open Hearth Sheets and Plates

Their unvarying high quality is generally recognized in the automobile, shipbuilding, car and tank building industries.

La Belle Sheets are perfectly homogeneous, flaw-free and of uniform gauge. That's why they bend, stamp, draw and press so cleanly and economically.

*Put La Belle on  
your inquiry list*

## La Belle Iron Works

"From Mine to Market"

General Offices:

STEUBENVILLE, OHIO

Plants:

STEUBENVILLE, O. WHEELING, W. VA.

# MORGAN PRODUCER-GAS MACHINE

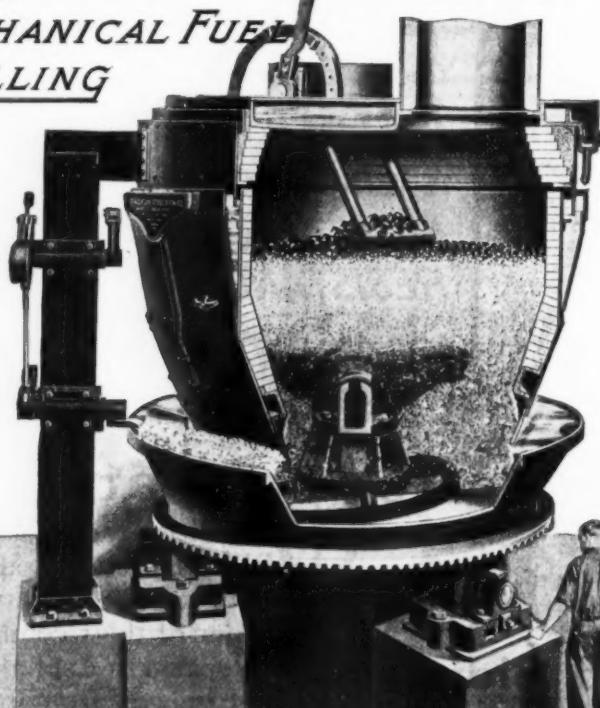


## CONTINUOUS LEVELLING

GIVES A RICH AND UNIFORM GAS  
FROM EVERY SQUARE FOOT OF  
GAS MAKING SURFACE

30 Plants having 265 Morgan  
Producer-Gas Machines installed  
during the last 3 years unanimously prefer

MECHANICAL FUEL  
LEVELLING



MORGAN CONSTRUCTION CO.  
WORCESTER, MASS., U.S.A.

## BOND

PILLOW



Like all Bond power transmission machinery, our Pillow Blocks are designed by experienced engineers along common sense lines.

They are rigid and strong—the metal is distributed to secure ample margins where it is most needed—where the greatest strain takes place.

BOND DOUBLE-SURE  
TRANSMISSION MACHINERY

includes Universal Shaft Hangers—Post Hangers—Bracket Hangers—Pillow Blocks—Adjustable Floor Stands—Solid and Split Collars—Plate Couplings—Pulleys, etc.

We are the originators of the four point Universal Ring Oiling Hangers (the hanger that keeps its bearings flooded with oil without waste) and there is no other genuine: our B-D-S trademark is a guarantee of the article.

RESPONSIBLE DEALERS should have the facts on Bond Equipment. If your dealer hasn't the facts, wire or write us for them.

In making up your specifications and orders, be sure to have the Bond Catalog (38-MR) on power transmitting equipment before you.

Write or wire for these today.

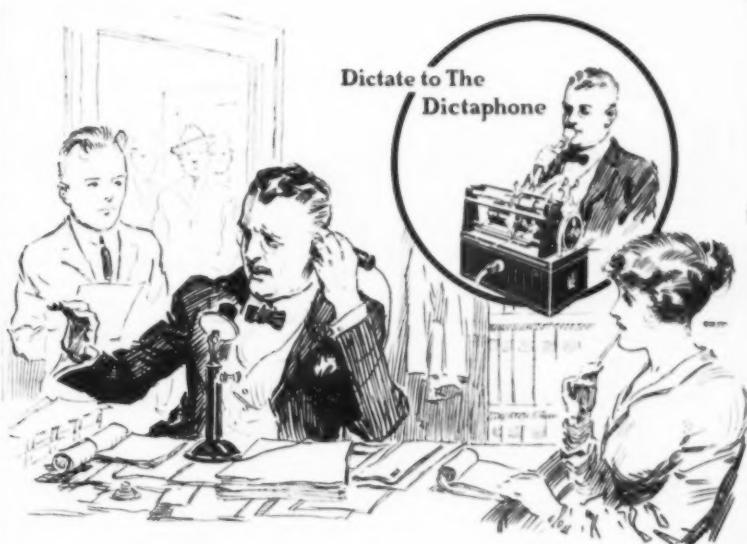
Bond Foundry and  
Machine Co.

Manheim, Lancaster Co., Pa.

## ASSOCIATED COMPANIES

Charles Bond Company, Philadelphia, Pa.  
Christiana Machine Company, Christiana, Pa.  
J. & G. Rich Company, Philadelphia, Pa.  
Canadian Bond Hanger & Coupling Co., Limited, Alexandria,  
Ontario, Canada.  
Bond Engineering Works, Limited, Toronto, Canada.

October 31, 1918.]



## Swamped with Mail?

*Let The Dictaphone Help You*

The Dictaphone eliminates the need of taking—or waiting to take—dictation. The telephone may keep interrupting, callers may flock in. But the production of the daily mail need not be held up a single minute. Each operator spends *all of her producing time in doing productive work*. As a result she writes 50% to 100% more letters per day than formerly—more accurate letters, too.

You also can clear your desk earlier in the day—or if you have taken over the work of some man who has gone into the service, you can get a great deal more done than before—because you need never wait for your dictation. The Dictaphone is ready for work any hour of the day or night you're ready, and it's very simple to use. The Dictaphone is needed in every textile office because every textile office has been heavily affected by the two drafts and will be still more so.

Phone to handiest branch office or write us for a demonstration in *your* office, on *your* work. Also ask for valuable, free book, "The Man at the Desk."

## THE DICTAPHONE

Registered in the U. S. and Foreign Countries



Dept. 131-J. B.

Branches Everywhere

Woolworth Building, New York

Write for booklet, "The Man at the Desk"

There is but one Dictaphone trademark "The Dictaphone," made and merchandised by the Columbia Graphophone Company.

"Buy War Saving Stamps"

## ARCHITECTS

## ENGINEERS

## CONTRACTORS

Detailed classification of specialized work undertaken by those having cards in this Directory will be found in Classified Index.

## MILBURN, HEISTER &amp; CO.

Architects

WASHINGTON, D. C.

## THE ARNOLD COMPANY

Engineers—Constructors

Electrical—Civil—Mechanical

126 South La Salle St CHICAGO

J. M. CLARK, Mem. A. I. M. E.  
C. E. KREBS, Mem. A. I. M. E.

G. R. KREBS J. W. MORGAN

## CLARK &amp; KREBS

Civil and Mining Engineers and Geologists  
Coal, Oil, and Gas  
Railroad and Municipal Engineering

CHARLESTON, W. VA.

## DOW &amp; SMITH

Chemical Engineers Consulting Paving Engineers  
A. W. Dow, Ph.B. F. P. Smith, Ph.B.  
Mem. Am. Inst. Ch. Engrs.  
Mem. Am. Soc. Civ. Engrs.  
Asphalt, Bitumens, Paving, Hydraulic, Cement,  
Engineering Materials  
131-3 E. 23d Street NEW YORK

Government Landscape Architect—1910-1916.

GEORGE BURNAP  
Landscape Architect  
Washington, D. C.

PARKS SUBDIVISIONS ESTATES

## DANIEL B. LUTEN

Designing and Consulting Engineers  
Reinforced Concrete Bridges exclusively.  
Associate Engineers in each State.

INDIANAPOLIS, IND.

## BLACK &amp; VEATCH

Consulting Engineers

Sewerage, Sewage Disposal, Water Supply, Water Purification, Electric Lighting, Power Plants, Valuations, Special Investigations and Reports.

E. B. Black, N. T. Veatch, Jr.  
KANSAS CITY, MO., Inter-State Bldg.

## CHARLES T. MAIN

Member A. S. M. E.  
Textile MillsWATER-POWER DEVELOPMENTS  
201 Devonshire Street BOSTON

## Concrete-Steel Engineering Co.

Designing and Supervising Engineers  
Concrete-Steel Bridges  
Concrete-Steel Tanks

Park Row Bldg. NEW YORK

## GILBERT C. WHITE, C. E.

M. Am. Soc. C. E.

M. Am. W. W. Assoc.

Consulting Engineer

Water-Works Streets

DURHAM, N. C.

## C. L. BROOKS ENGINEERING CO

Packing-House and Cold-Storage Engineers

We help you raise the capital, build the plant and run it successfully. We make a specialty of Southern plants.  
Main Office—MOULTRIE, GA.  
MINNEAPOLIS, MINN. ATLANTA, GA.  
736 Plymouth Bldg. 711 Empire Bldg.

## Dixie Engineering &amp; Insulating Co.

Design and equip Milk, Ice-Cream, Cold-storage and Packing Plants, Conveyor Equipment for all kinds of Industrial Plants.

ATLANTA, GA.

## RICHARD K. MEADE &amp; CO

Chemical and Industrial Engineers and Contractors.

Chemical, Cement, Lime, Fertilizer, Stone Crushing and Agricultural Lime-Stone Plants Designed, Built, Improved and Operated. Reports on Industrial Propositions. Technical Research.  
LAW BUILDING, BALTIMORE, MD.

## F. EARNEST BRACKETT

Civil and Mining Engineer  
Coal Mines, Water Works, Sewerage, Industrial Plants, Surveys and Reports.  
Third National Bank Bldg. Cumberland, Md.

## DAY &amp; ZIMMERMANN, Inc.

Engineers

Layout, Design and Construction of Industrial Plants and Public Service Properties, Examinations, Reports and Valuations, Highway Engineering, Operation of Public Service Properties.

PHILADELPHIA

## HUGH L. COOPER &amp; CO.

General Hydraulic Engineering

Including the Design, Financing, Construction and Management of Hydro-Electric Power Plants.

101 Park Avenue NEW YORK

## MORRIS KNOWLES

M. Am. Soc. C. E. Mem. Am. Soc. M. E.  
Hydraulic and Sanitary Engineer

Investigations and Valuations for Purchase or Financing Water and Sewer Systems, Water Power, Drainage and Irrigation Systems.

1200 B. F. Jones Law Bldg. PITTSBURGH, PA.

## MARTIN J. LIDE

Consulting and Constructing Electrical and Mechanical Engineer

BIRMINGHAM, ALA.

## WILEY &amp; WILSON

Consulting Engineers  
Manufacturing Plants, Steam and Electric Power Plants, Steam Heating and Ventilating Systems.

907-909 Peoples National Bank Bldg. LYNCHBURG, VA.

## THE JENNINGS-LAWRENCE CO.

Civil and Municipal Engineers  
Streets, Roads, Water Supply, Sewerage, Surveying, Designs, Specifications & Supervision.

COLUMBUS, OHIO

511-12 Hartman Bldg.

## GARDNER &amp; HOWE

Engineers  
Designs, Estimates and Supervision; Concrete Bridges, Viaducts, Buildings, and other Structures.

Porter Building MEMPHIS, TENN.

## STANLEY F. MORSE

Mem. Amer. Soc. A. E.  
Consulting Agricultural Engineer  
Land Selection; Agricultural Surveys, Development Plans and Estimates; Supervision and Management of Agricultural Enterprises, Territory: South, Southwest, Latin-America, Spanish Spoken.

Hibernia Bank Bldg. NEW ORLEANS, LA.

## W. S. KINNEAR &amp; CO.

General Engineering  
Consulting—Reports—Valuations  
Specializing on railway and public utility reports and valuations.

111 Broadway NEW YORK CITY

## T. M. IRELAND

Contractor  
TEAMING—GRADING  
MULES

2508 Maryland Ave. BALTIMORE, MD.

## W. E. MOORE &amp; COMPANY

Engineers

Reports, Designs, Supervision, Public Service Properties, Power Developments, Distribution and Application.

Union Bank Bldg. PITTSBURGH, PA.

## FREEL AND KLYCE ENG'G CO

Consulting Engineers

Concrete and Steel Structures

NASHVILLE TENN.

## B. M. HALL &amp; SONS

(Successors to Hall Brothers)

Civil and Mining Engineers

Mines, Quarries, Hydraulics, Water Supply, Water-Power, Dams, Reservoirs, Conduits, Drainage, Appraisals.

Peters Building, ATLANTA, GA.

## J. LEON HOFFMAN

Landscape Architect and Engineer

INDUSTRIAL VILLAGES A SPECIALTY

References from some of the largest Cotton Mills

103 Peachtree Street

ATLANTA, GA.

## SAVANNAH ENGINEERING AND CONSTRUCTION CO.

SAVANNAH, GEORGIA

Engineers and Constructors

## FRANCIS R. WELLER, M. Am. Soc. C. E.

Consulting Engineer

Hydro-Electric and Steam Power Plants, Reports, Appraisals, Design, Construction, Properties Operated

Hibbs Building, WASHINGTON, D. C.

## Architects

## Chemists

## Engineers

## Geologists

The constant expanding activity in industrial operations throughout the Southern and Southwestern States are creating a steady demand for the services of architects, engineers, chemists, geologists and other specialists to render advice in plant design and operation.

Your card in the professional directory of the Manufacturers Record—for 35 years the leading exponent of Southern development—will keep your special line of work before the men who are in active charge of the South's industrial affairs.

## ===== DIRECTORY =====

## ARCHITECTS

## ENGINEERS

## CONTRACTORS

Detailed classification of specialized work undertaken by those having cards in this Directory will be found in Classified Index.

**Ford, Bacon & Davis,**  
Engineers.

115 Broadway, New York

New Orleans

San Francisco

## ARTHUR G. MCKEE &amp; CO.

Engineers and Contractors

Power Plants. Industrial Buildings. Metallurgical Plants. Blast Furnaces.  
Storage Bins. Coal-Handling Equipment.  
Design—Construction

CLEVELAND, OHIO.



**INTERNATIONAL CONVEYER CORPORATION**  
**Stuart System**

Ground Storage and Reclaiming and Railroads,  
Mines and Industrial Plants.

1512 H Street N. W.  
WASHINGTON, D. C.50 E. 42nd Street  
NEW YORK

## SCOFIELD ENGINEERING COMPANY

Consulting, Designing and Supervising Engineers

TEXTILE—MECHANICAL—ELECTRICAL—CIVIL

Commercial Trust Building PHILADELPHIA

## THE CONCRETE STEEL BRIDGE CO.

Engineers

Contractors

Bridges Buildings  
Union National Bank Building

Industrial Plants  
CLARKSBURG, W. VA.

**THE AMERICAN APPRAISAL COMPANY**  
MILWAUKEE NEW YORK

Authoritative Reports and Valuations Covering Industrial,  
Commercial, Mineral, Municipal, Public Utility and Resi-  
dence Properties.

## JOHN T. MCKINNEY CONSTRUCTION CO.

INCORPORATED

## GENERAL CONTRACTORS AND BUILDERS

CONSULTING ENGINEERS

LYNCHBURG, VIRGINIA

DESIGNING AND ENGINEERING  
RAILROAD AND HEAVY EXCAVATION  
BUILDINGS, INDUSTRIAL AND HOUSING  
REAL ESTATE DEVELOPMENTS AND LAYOUTS

ROADS, PAVEMENTS AND SIDEWALKS  
WATER WORKS, BRIDGES AND SEWERS  
CONCRETE WORK OF EVERY DESCRIPTION  
QUARRYING AND STONE CRUSHING PLANTS

HOME OFFICE

PEOPLES NATIONAL BANK BUILDING  
LYNCHBURG, VIRGINIA

## JOHN B. GUERNSEY AND COMPANY

INCORPORATED

## CONSULTING—ENGINEERS—OPERATING

BLAST FURNACES  
IRON ORE MINES  
FERRO-ALLOYS  
COAL MINES—COKE

RECONSTRUCTION  
REORGANIZATION  
RE-FINANCING  
OPERATING

OFFICES AND LABORATORY—ROANOKE, VA.

JOHN B. GUERNSEY AND COMPANY

**STONE & WEBSTER**

Industrial Plants and Buildings, Steam Power Stations, Water Power Developments,  
Transmission Lines, Gas Plants, Electric and Steam Railroad Work, Substations.

NEW YORK

BOSTON

CHICAGO

**FULLER ENGINEERING COMPANY**

Designing and Constructing Engineers.

Portland Cement, Rotary Kiln and Hydrated Lime Plants.  
Pulverized Coal Installations for Industrial Furnaces.

Main Office:  
ALLENTEW, PA.

60 Church Street, NEW YORK  
Farmers Bank Bldg., PITTSBURGH  
McCormick Building, CHICAGO

**PRIDE & FAIRLEY**

Consulting Engineers

Specializing in Drainage, Flood Prevention.  
JOE P. PRIDE, formerly Chief Engineer St. Francis Levee District.  
O. M. FAIRLEY, formerly Assistant Engineer Bureau of Drainage Investigation, Department of Agriculture.  
W. H. POE, Hydraulic Engineer.

BLYTHEVILLE, ARK.

**THE J. G. WHITE COMPANIES**

Engineers—Contractors—Financiers—Managers

43 EXCHANGE PLACE, NEW YORK

London

Chicago

**H. M. BYLLESBY & COMPANY**

Engineers and Managers

Purchase, Finance, Design, Construct and Operate Electric Light, Gas,  
Street Railway and Water Power Properties. Utility Securities Bought  
and Sold. Examinations and Reports.

NEW YORK

CHICAGO

TACOMA

WASHINGTON

**TUCKER & LAXTON**

Contracting Engineers

Filters, Concrete Work, Hydro-Electric and Steam Electric Construction  
CHARLOTTE, NORTH CAROLINA

**C. W. LANE & CO., Inc.**

General Contractors

Steam and Electric Railroads, Water Powers Developed.  
City Water-Works, Sanitary Sewers, Street Paving, Concrete Buildings.  
General Offices, Healey Building

ATLANTA, GA.

**THE S. R. SMYTHE COMPANY**

Engineers PITTSBURGH, PA. Contractors

Steel Works, Rolling Mills, Blast Furnaces, Hot Blast Stoves, Furnaces for All  
Purposes. Operated with Producer Gas, Natural Gas, Oil or Pulverized Coal.  
Coke Ovens. Gas Producers, Hand Operated or Mechanical.

The Valve of the Era. SCHILD SLIDING GAS AND AIR REVERSING VALVES.

**THE J. B. McCRARY COMPANY**

Engineers ATLANTA, GEORGIA

**MUNICIPAL IMPROVEMENTS**

We design and construct Water Works, Electric Light and Sewer  
Systems—Paving and Road Work.

**DIRECTORY****CHEMISTS****GEOLOGISTS****CHEMICAL ENGINEERS  
TESTING LABORATORIES**

Detailed classification of specialized work undertaken by those having cards in this Directory will be found in Classified Index.

**SAMUEL P. SADTLER & SON**

Consulting and Research Chemists.  
Analyses and Reports made in all Branches of Industrial Chemistry. Raw Materials and Waste Products studied and reported upon. Experimental work.  
Office and Laboratory, 210 S. 13th Street; Experimental Laboratory, Chestnut Hill, Philadelphia, PA.

**PITTSBURGH TESTING LABORATORY***General Inspection*

Specialties—Cement and Road Materials, Cast Iron Pipe, Chemical and Physical Tests.  
CINCINNATI BIRMINGHAM DALLAS  
CHICAGO PITTSBURGH NEW YORK

**FROEHLING & ROBERTSON**

Richmond Testing Laboratory  
Chemists and Economic Geologists  
Analyses of all kinds. Waters and fertilizers specialties. Standard Cement Testing Examinations and reports on mineral properties.  
813 East Franklin St. RICHMOND, VA.

**WILEY & COMPANY**

Analytical and Consulting Chemists  
Experts on Fertilizer Materials, Coal, Greases, Foods, Drugs, Dairy Products, Chemical and Bacteriological Examinations of Water for Domestic and Manufacturing Purposes.  
7 S. Gay Street BALTIMORE, MD.

**GEORGE C. DAVIS**  
Analytical and Consulting Chemist  
Analyses of Iron, Steel, Ores, Alloys, Coal, Sand, Clay and Cement.  
29 South Tenth St. PHILADELPHIA, PA.

**ARCHITECTS**  
Your card on these pages will place you directly before the active forces of the South and Southwest.

**ENGINEERS**

**R THE INSTITUTE OF INDUSTRIAL RESEARCH**  
Consulting Chemists and Chemical Engineers WASHINGTON, D. C. **R**  
Special Attention to Food and Drug Products

**WM. P. NELSON, JR.**

Industrial Chemist  
Analyses Inspections Research Chemical Control

**NEW ORLEANS**  
904 Hennen Building

**MINERAL CORPORATION OF AMERICA, Incorporated**

Engineers Metallurgists Managers

Examination, Exploration and Management of Mining Properties.  
Metallurgical Investigations. Processes Developed.  
Analyses of Ores and Minerals.

ORE BUYERS 42 BROADWAY, NEW YORK  
ORE SHIPPERS' AGENT Also London

**THE FORT WORTH LABORATORIES**

Cottonseed and Food Products, Milling and Baking Tests, Engineering Inspections and Tests, Analysis of Waters, Fuels, Petroleum Products, Etc., Bacteriological, Pharmaceutical, Toxicological Work, Soap, Glycerine, Packing House Products, Fertilizer and Clay Products

F. B. PORTER, B. S.; Ch. E., Pres. R. H. FASH, B. S., V.-Pres.  
204½ Houston Street. FORT WORTH, TEXAS

**Arthur D. Little, Inc.**

CAMBRIDGE, MASS.

Chemists - Engineers - Managers

Here we are in the garden spot of the world, with climate and soil most favorable for vegetation. On the other hand, part of the world is likely to be hungry for the next ten years. The South can furnish fruits and vegetables in quantities undreamed of—provided they are dehydrated. It is time to begin the dehydration of Southern Fruits and Vegetables, but research is necessary to achieve the best results and to avoid mistakes. We have done some work on this problem. If you are interested, why not write to us about it?



We test foundations for buildings, bridges and dams.  
We prospect coal and mineral lands in any part of North and South America.

**WE LOOK INTO THE EARTH**  
By use of Diamond Core Drills  
**PENNSYLVANIA DRILLING COMPANY**

2628 Whithall Bldg., New York. 1812 W. Carson St., Pittsburgh, Pa.  
Phone Rector 5998

**LOOKING FORWARD---BUSINESS AFTER-WAR CONDITIONS**

Our more progressive Manufacturers are now detailing their engineers to plan new lines for their men and machinery the instant peace is declared, and are protecting against competition here and abroad under Patent and Trade-Mark laws.

**EUGENE C. BROWN.** PATENT LAWYER.  
734 Eighth St., N. W., Washington, D. C. Graduate Engineer, Lehigh University; Member Bar U. S. Supreme Court; Former Examiner U. S. Patent Office. PATENTS AND TRADE-MARKS. Infringements and extent of patent monopoly investigated for manufacturers.

**Davison Chemical Co.**

ESTABLISHED 1832

Largest and Oldest Sulphuric Acid Plant in the United States

**SULPHURIC ACID**  
ALL GRADES

Also Manufacturers of  
**Acid Phosphate**

**OFFICERS**

C. WILBUR MILLER - - President.  
GEORGE W. DAVISON - Vice-President.  
E. B. MILLER - - Vice-President.  
W. D. HUNTINGTON - Vice-President.  
J. R. WILSON - - Sec. and Ass't. Treas.

**Main Office—Garrett Building**  
**BALTIMORE, MD.**

Works—Curtis Bay, Md.

Branch Office—2316 Equitable Bldg., New York

**Industrial Plants****Chemical Plants****By-Product Plants****Distilled Water Plants****What are your PROBLEMS?**

We offer SERVICE. Heating, Cooling, Evaporating, Crystallizing, Condensing Liquids of Varying Specific Gravity requiring fixed ranges of temperature.

**WE BUILD****Heaters**

Closed Type Multiflow Design

**Vacuum Pans**

Coil or Calandria Design

**Evaporators**

Single Effect or Multiple Effect Design

**BIRMINGHAM  
Machine & Foundry Co.**

Birmingham, Ala.

Engineers

Manufacturers

Constructors

# Rollin Chemical Company, Inc.

Charleston, W. Va.

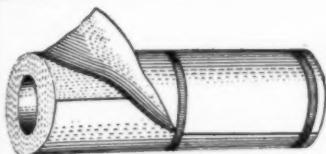
Manufacturers of

**Barium Binoxide 90%  $BaO_2$ , Barium Chloride**

**Barium Carbonate 99+%  $BaCO_3$ , Barium Nitrate**

**Precipitated Barium Sulphate (Blanc Fixe) Dry or Pulp**

**Sodium Sulphide Fused 60%**



**Asbestos**

and

**MAGNESIA**  
Pipe Covering

**Sanitary  
Floors**

Write for  
Samples and Prices

ACME ASBESTOS COVERING & SUPPLY CO.  
406 No. Ada Street, Chicago



# DURIRON

Acid-Alkali-Rust-Proof

## Nitric Acid Bleacher

In the manufacture of Nitric it is necessary to "bleach" the acid if a water product is desired—as is usually the case.

While the general features of the Bleacher are always the same, each acid manufacturer has his own ideas as to details, many of which are unimportant; consequently they are about as many sizes and designs in use as there are Acid Plants. This means added expense.

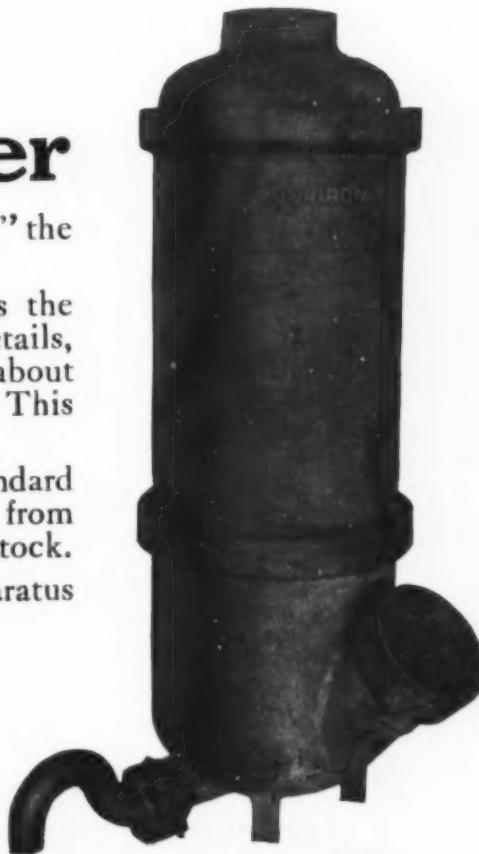
To simplify the situation we have designed a Standard Bleacher, embodying all of the best features, which is cast from our own patterns and which in normal times is carried in stock.

Write for further particulars and list of other apparatus manufactured.

Note—Bleachers from customers' designs are still built by us—but this involves an expense for patterns, longer time for delivery and frequently a higher price.

**Duriron Castings Company, Dayton Ohio**

New York Office: 90 West St., Chicago: Harris Trust Bldg.



Duriron Bleacher, Standard



## IN GOVERNMENT SERVICE

### WE ARE HELPING UNCLE SAM WIN THIS WAR

Our Vanco Bronze and other lighting fixtures are now devoted solely to Industrial housing. Our entire plant is being utilized for special Government work.

#### THIS WILL CONTINUE FOR THE DURATION OF THE WAR

In common with all other loyal American Industries, this entire service to National Needs will hasten the Day of Victory and a resumption of the good-will and co-operation that has been so conscientiously sought for and prized by this manufacturing firm of exclusive lighting fixtures.

### MITCHELL VANCE CO., INC.

Sole Producers of VANCO BRONZE, the New Metal

503-511 West 24th Street

New York City



## SEATING AND EQUIPMENT

for

SCHOOLS (Industrial—Public—Private)—AUDITORIUMS—CHURCHES—THEATRES



Moultrop Movable Chair Desk  
Desk Top is Adjustable  
Vertically—Horizontally—Inclinably

This Desk used in the Continuation Schools of:—

Armour & Company

Swift & Company

Nelson Morris & Co.



This view of the Continuation School of Armour & Co., Chicago, is typical of a Progressive Industrial School.



Style "D" Reversible Portable Blackboard

A Great Convenience and a Necessity for any Class Room

Our complete Class Room Supply Catalog and Price List No. 41 of  
BLACKBOARDS, CHARTS,  
MAPS, SANITARY  
SUPPLIES, ETC.

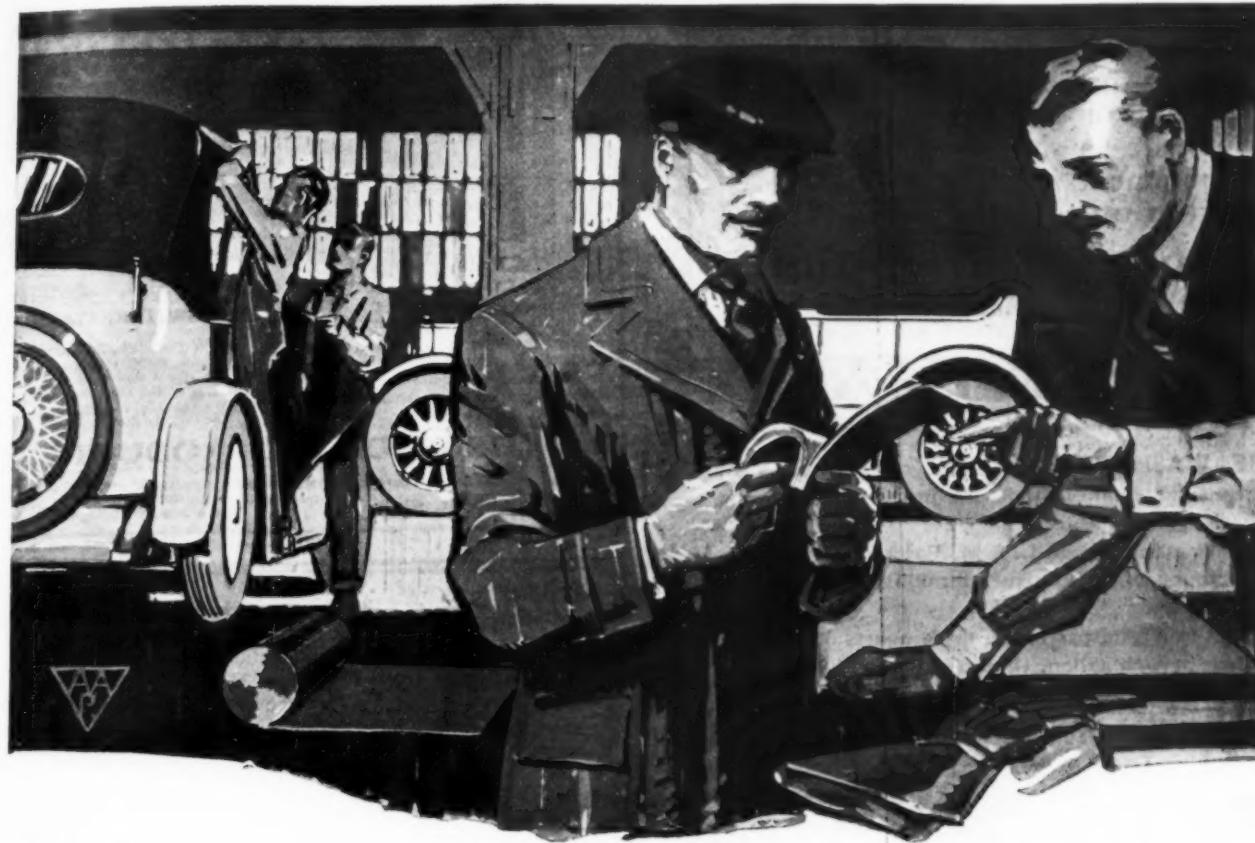
Contains valuable information and  
is a guide to proper equipment and  
practice in the CLASS ROOM.

# AMERICAN SEATING COMPANY

GENERAL OFFICES, 1054 LYTTON BUILDING, CHICAGO

Sales Offices in All Principal Cities

## DU PONT AMERICAN INDUSTRIES



*Order your new*  
**RAYNTITE TOP—now**

Have its guaranteed protection against rain, snow and hail for the winter motoring season, if possible. At least, make sure you will have it for next spring and summer.

The top maker is a mighty busy man. He will be unable to fill all the orders offered him.

With new cars impossible to obtain, the millions of used cars must remain in service. So many of these require new tops to make them sightly and serviceable that only those owners who order at once can be supplied.

Prompt action enables the top maker to plan for labor and materials that will be difficult or impossible to obtain later—it insures you getting the top material you should have.

MAIL THIS COUPON

marking X before subject that interests you  
to the Advertising Division  
E. I. Du Pont de Nemours & Company, Wilmington, Del.

<input type="checkbox"/> Pyra-lin Toilet Goods	<input type="checkbox"/> Truck Spec. Fabrikoid
<input type="checkbox"/> Challenge Collars	<input type="checkbox"/> Fabrikoid Sheetings
<input type="checkbox"/> Novelty Sheeting	<input type="checkbox"/> Fairfield Rubber Cloth
<input type="checkbox"/> Transparent Sheeting	<input type="checkbox"/> Industrial Dynamites
<input type="checkbox"/> Pyra-lin Rods and Tbs.	<input type="checkbox"/> Blasting Powder
<input type="checkbox"/> Pyra-lin Pipe Bits	<input type="checkbox"/> Farm Explosives
<input type="checkbox"/> Pyra-lin Specialties	<input type="checkbox"/> Hunting
<input type="checkbox"/> Sanitary Wall Finish.	<input type="checkbox"/> Trapshooting
<input type="checkbox"/> Town and Country Paint	<input type="checkbox"/> Anesthesia Ether
<input type="checkbox"/> Vitrolac Varnish	<input type="checkbox"/> Leather Solutions
<input type="checkbox"/> Flowkote Enamel	<input type="checkbox"/> Metal Lacquers
<input type="checkbox"/> Liquid Light for Mills	<input type="checkbox"/> Pyra-lin Enamels
<input type="checkbox"/> Antoxide Iron Paint	<input type="checkbox"/> Bronzing Liquids
<input type="checkbox"/> Auto Enamel	<input type="checkbox"/> Pyroxylin Solvents
<input type="checkbox"/> Rayntite Top Material	<input type="checkbox"/> Bronze Powder
<input type="checkbox"/> Motor Fabrikoid	<input type="checkbox"/> Commercial Acids
<input type="checkbox"/> Craftsman Fabrikoid	<input type="checkbox"/> Alums

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

DU PONT  
FABRIKOID  
RAYNTITE

In selecting a top material consider the reputation of the manufacturer and his guarantee. Rayntite Fabrikoid is a Du Pont Product. It is the only top and curtain material specifically guaranteed for one year, during which time we warrant it not to leak, crack or peel. Made in single and double texture and built to last the life of the car, it retains its shapely, smart attractiveness longer than any similar material.

When cushions need re-covering, specify Motor Fabrikoid. It is an economical and beautiful material with wonderful service qualities. Any good auto trimmer can furnish Motor Fabrikoid and do the work.

Samples of Rayntite and Motor Fabrikoid sent on request. Orders placed now save money and disappointment later.

**DU PONT FABRIKOID COMPANY**

World's Largest Manufacturers of Leather Substitutes

**WILMINGTON**

Works at Newburgh, N. Y. and Fairfield, Conn.

**DELAWARE**

Canadian Office and Factory, New Toronto, Ont.

**The Du Pont American Industries Are:**

E. I. du Pont de Nemours & Co., Wilmington, Del.	Explosives
Du Pont Fabrikoid Co., Wilmington, Del.	Leather Substitutes
Du Pont Chemical Works, Equitable Bldg., New York	Pyroxylin and Coal Tar Chemicals
The Arlington Works, 725 Broadway, New York	Ivory Pyra-lin and Cleanable Collars
Harrison Works, Philadelphia, Pa.	Paints, Pigments, Acids and Chemicals
Du Pont Dye Works, Wilmington, Del.	Dyes and Dye Bases

DU PONT

## NORTHROP LOOMS

Trade-Mark

The mill having Common looms that does not lay aside a part of its war profits to provide a Northrop Loom equipment is failing in its duties to its stockholders.

### Draper Corporation

Hopedale Massachusetts

Copyright 1916 by Draper Corporation

THE WASHINGTON MILLS of FRIES, VA., consider quality and not price when buying supplies.

They have standardized L. & M. Paint for their plants upon account of its extreme durability and superior covering power.

Our paint is a semi-paste, and three quarts of oil must be added to each gallon, thus producing 1½ gallons of superb mixed paint at a proper price.

*We have sold Paints  
"upon honor" for 62 years.*



**Longman & Martinez**  
Paint Makers  
NEW YORK CITY

## ROEBLING WIRE ROPE

and WIRE ROPE SLINGS.



Roebling wire Rope Slings are the safe and efficient hoist for Handling;  
MACHINE PARTS PIPE  
LATHES STONE BLOCKS  
PLANER TABLES EYE BEAMS  
STEEL PLATES GIRDERS  
LADLES COLUMNS  
GENERATORS Structural Steel in  
MILLS General  
ARMATURES Automobile Parts  
BOILERS and Other Materials

SEND FOR SLING BULLETIN

JOHN A. ROEBLING'S SONS COMPANY

TRENTON, NEW JERSEY

New York Atlanta Boston Chicago Philadelphia Pittsburgh Cleveland  
Agencies and Branches San Francisco Los Angeles Seattle Portland, Ore.

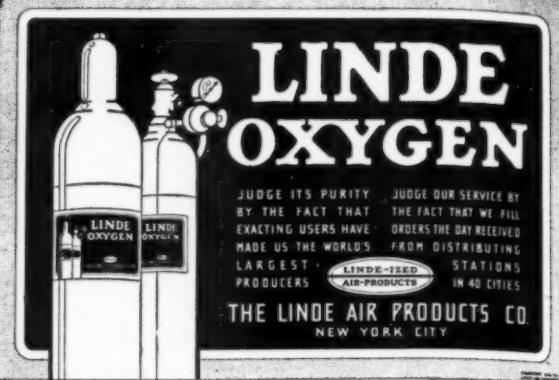
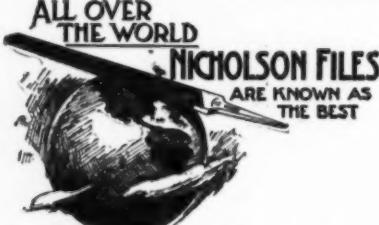
Fine materials, expert workmen, and the best equipped File Factory in the World, enable us to guarantee the sharp teeth, fine temper, uniform quality and long wearing qualities of every NICHOLSON File.

Specify "NICHOLSON" when ordering Files.

A personal test will do the rest.

FOR YOU—A fifty years' education on Files in an hour. Told in our booklet "FILE PHILOSOPHY." Sent FREE on request with half-tone catalog de luxe.

**NICHOLSON FILE CO., PROVIDENCE, R. I.**



### SOUTHERN PLANTS AND DISTRIBUTING STATIONS

Atlanta, Ga., Plyant St. and Southern R. R.  
Baltimore, Md., 25th St. and Montebello Ave.  
Birmingham, Ala., 1012 North 22nd St.  
Chattanooga, Tenn., 212 to 23 King St.  
Cincinnati, Ohio, 63 Plum St.

East St. Louis, Ill., 6th and Walnut Ave.  
Memphis, Tenn., 203 Washington St.  
New Orleans, La., 961 Fulton St.  
St. Louis, Mo., 4218 Forest Park Blvd.  
The Linde Air Products Co. of Texas, Harwood  
and Coombas Streets, Dallas, Texas.

### THE LINDE AIR PRODUCTS CO.

"Largest Producers of Oxygen in the World"

Forty-second St. Bldg.

New York, N. Y.

*Let Gravity  
Do It!*

Men are needed "over there." More and more men will be given, cheerfully and generously. Meanwhile labor at home will be scarce. Men—and women—will be required to do more in a given time than ever, Dow Gravity Carriers are helping by saving time and labor, cutting down handling costs and speeding up production.

Write Now for Details

**DOW WIRE AND IRON WORKS**  
Incorporated

LOUISVILLE

KENTUCKY



## "MONARCH WHYTE STRAND" WIRE ROPE

Hoisting Haulage  
MACOMBER & WHYTE ROPE CO., Chicago; Kenosha, Wis.; Pittsburgh

## WIRE ROPE

Broderick & Bascom Rope Co. St. Louis, Mo.  
Manufacturers of "Yellow Strand" Wire Rope

## ROLLING Steel and Wood DOORS

APPROVED FIRE DOORS

THE KINNEAR MANFG. CO.

COLUMBUS, O.

## HIGH GRADE MALLEABLES

Malleable Iron Castings of every description. True to pattern—free from blemishes, scale or shrinkage cracks. Made to specified tensile or transverse strength tests.

We are in a position to furnish you castings from your blue prints.

Let us figure on your requirements.

We are serving many of the most prominent manufacturing industries in these United States to their entire satisfaction.

Let us add you to the list.

**THE MAL-GRA CASTINGS CO.**  
CAMBRIDGE CITY, IND.

# MANUFACTURERS RECORD

DEVOTED TO THE UPBUILDING OF THE NATION THROUGH THE DEVELOPMENT OF THE SOUTH AND SOUTHWEST AS THE NATION'S GREATEST MATERIAL ASSET

Trade-Name Registered in the U. S. Patent Office

BALTIMORE, OCTOBER 31, 1918.

\$6.50 A YEAR.  
SINGLE COPIES, 15 CENTS.

Vol. LXXIV, No. 18.

WEEKLY.

PUBLISHED EVERY THURSDAY BY THE  
MANUFACTURERS RECORD PUBLISHING CO.

RICHARD H. EDMONDS, Pres. VICTOR H. POWER, Treas.  
FRANK GOULD, Vice-Pres. I. S. FIELD, Sec'y.

RICHARD H. EDMONDS, Editor and General Manager

BRANCH OFFICES

NEW YORK, 52 Broadway CHECAGO, 405 Fisher Bldg.  
BOSTON, 733 Old South Bldg. ST. LOUIS, 608 Century Building

SUBSCRIPTION RATES.

\$10 a year (in advance); six months, \$3.50; three months, \$2.00 to United States, Mexico, Cuba, Porto Rico, Hawaii and the Philippines. For Canada, add postage \$2 a year. For other foreign countries, add postage \$4 a year. Back numbers, if available and not over one month old, 50 cents each. From one month to six months old, 50 cents each; over six months old, \$1 each.

In ordering change of address, give old as well as new address.

[Entered at the Baltimore Postoffice as second-class matter.]

In order to avoid delays, all correspondence pertaining to our advertising matters should be addressed directly to Manufacturers Record, Baltimore, Md., and not to individual editors, officers, employees or any branch office.

## ON TO BERLIN!

## UNCONDITIONAL SURRENDER!

## PUNISHMENT BY DEATH OF THE LEADING CRIMINALS!

Confiscation of Germany's navy and every munition plant!

Full indemnity for every dollar expended by America and our Allies, and indemnity to the family of every soldier murdered, to every soldier permanently invalidated, to every civilian maltreated, to every Belgian or French man and woman compelled by Germany to labor for its interests!

A ship for every ship murdered by sub-marines!

Return of everything looted, from pictures to locomotives, in kind or in value!

Confiscation toward these payments of every dollar of bonds issued by Germany and its allies for this accursed war work!

These are a few of the main things which must be demanded of Germany, or else we shall prove recreant to our responsibilities to God and to mankind.

## ON TO BERLIN!

## WHAT THE KAISER AND ALL GERMANY SAID.

"There will be no peace except peace by the sword."

"The mailed fist is our only answer."

"My victorious armies will compel peace on our own terms."

And now the cringing cowards are seeking to secure a peace "honorable to Germany," and some Americans are trying to give Germany:

"A peace without humiliation,"

"A pleasing peace,"

"A peace "Without Unconditional Surrender,"

"A peace without punishment."

May the great God in heaven forbid that crime shall thus go unpunished and that we shall thus become partners in these crimes!

## What Mean These "Healing Peace" Negotiations

Greatly to the amazement of its readers, recently the New York World vigorously asserted editorially that there was no need for America to demand "unconditional surrender" by Germany.

As the New York World has been accounted a mouthpiece of President Wilson, that statement seriously alarmed the country.

The country has a right to be alarmed now that it is reported that the chief editorial writer of the New York World is in Paris as a confidential diplomatic representative of Mr. Wilson to discuss questions of peace.

Considering the position of the World against unconditional surrender by Germany, and the fact that Colonel House is the President's representative at the present time in negotiation with the representatives of the Allies, it is impossible for thoughtful people to avoid something of a shudder as they remember the World's position, and when they bear in mind that Ambassador Gerard, in his book, "Face to Face With Kaiserism," writing of how Colonel House was regarded in Berlin, said:

"The Colonel is so relied upon here that he will be doubly welcome as the bird with the olive branch."

Bear in mind that that statement appears in Ambassador Gerard's book on pages 95 and 96, and in connection therewith note that in the intimate biography of "The Real Colonel House," by Arthur D. Howden Smith, which is regarded as an official statement of Colonel House's life, the following remarkable paragraph appears:

"I think it is my memory of early times in Texas which keeps me from being as shocked as some people are at the dreadful slaughter of this war," he once remarked. "To a man who can remember when bad men killed for sport in open daylight in city streets and desperadoes swarmed in bands and ruled whole tracts of country, the destruction of European lands is not so startling, after all."

Thus the man who is not shocked by the slaughter of this war and is not startled by the destruction in European lands, and who, according to Ambassador Gerard, would be welcomed by Germany as "the bird with the olive branch," and the editor of the New York World, which insists that we must not push Germany to the point of unconditional surrender, are now in Europe, the former as the representative of President Wilson and the latter reported as a semi-diplomatic representative of Mr. Wilson!

Is it any wonder that America is startled?

Is it any wonder that from one end of the country to the other there rises a voice calling upon this country to demand that Germany shall be made to surrender uncondi-

tionally, and that Germany shall be punished for its crimes?

We believe that this demand will be so overwhelming that even President Wilson must reverse the position which he is supposed to hold, and that before the day of election he, too, must come out and demand unconditional surrender by Germany.

We do not believe it possible even for President Wilson to stand against the overwhelming sentiment of the country and of our Allies if he is, as some of his friends claim, seeking "a peace without humiliation" for Germany; and we feel almost safe in predicting that he will undertake to cut from the Republican campaign the strongest position which it could possibly hold in its demand for unconditional surrender by making some of his notes to Germany, prior to November 5th, a demand of that kind.

In the light of the statements which we have quoted in regard to Colonel House, it is interesting to note what Mr. David Lawrence, one of the supposed spokesmen for Mr. Wilson, says in regard to House's visit to Europe. According to this statement, Colonel House has gone abroad to convey to the Allied Governments the President's desire for a "healing peace." It is an amazing statement, but it needs to be read and studied. It appeared in one of the letters of Mr. Lawrence in the New York Evening Post and other papers of October 25. It is as follows:

**Colonel House goes abroad at a moment when he can advise the Allied Governments of just what the President's views are concerning a HEALING PEACE, one that will eliminate Kaiserism and large standing armies which will not destroy the German nation, but enable it to be admitted to a league of nations when once it sets up a democratic government responsible to the people only.**

Our task is the death of Germanism. Our task is to conquer Germany and punish with death the criminals who have brought on this war and to lay upon the German nation a penalty equal to the entire cost of the war to all of the Allies and America included, and then, and then only, will German people believe that right is greater than might. Then, and then only, will they believe that their nation has really been defeated.

If our armies are halted outside of Germany by my form of surrender, and are not permitted to enter Berlin, the German people as a whole will never believe that Germany has been licked, and in

the flags of the Allies and of America

Ponder over these facts, study their limitless potentialities for evil, and make your voice heard in a mighty chorus that shall not go unheeded.

**ON TO BERLIN!**

**UNCONDITIONAL SURRENDER!**

[October 31, 1918]

## NORTHROP LOOMS

Trade-Mark

The mill having Common looms that does not lay aside a part of its war profits to provide a Northrop Loom equipment is failing in its duties to its stockholders.

**Draper Corporation**  
Hopedale Massachusetts

Copyright 1916 by Draper Corporation

THE WASHINGTON MILLS of FRIES, VA., consider quality and not price when buying supplies.

They have standardized L. & M. Paint for their plants upon account of its extreme durability and superior covering power.

Our paint is a semi-paste, and three quarts of oil must be added to each gallon, thus producing 1½ gallons of superb mixed paint at a proper price.

*We have sold Paints  
"upon honor" for 62 years.*



**Longman & Martinez**  
Paint Makers  
NEW YORK CITY

## ROEBLING WIRE ROPE and WIRE ROPE SLINGS.



Roebling wire Rope Slings are the safe, efficient way for Heavy

# LINDE OXYGEN

JUDGE ITS PURITY  
BY THE FACT THAT  
EXACTING USERS HAVE  
MADE US THE WORLD'S  
LARGEST PRODUCERS

JUDGE OUR SERVICE BY  
THE FACT THAT WE FILL  
ORDERS THE DAY RECEIVED  
FROM DISTRIBUTING  
STATIONS IN 40 CITIES

THE LINDE AIR PRODUCTS CO.  
NEW YORK CITY

### SOUTHERN PLANTS AND DISTRIBUTING STATIONS

Atlanta, Ga., Plyant St. and Southern R. R.  
Baltimore, Md., 25th St. and Montebello Ave.  
Birmingham, Ala., 1012 North 22nd St.  
Chattanooga, Tenn., 212 to 238 King St.  
Cincinnati, Ohio, 63 Plum St.

East St. Louis, Ill., 6th and Walnut Ave.

Memphis, Tenn., 303 Washington St.

New Orleans, La., 861 Fulton St.

St. Louis, Mo., 4218 Forest Park Blvd.

The Linde Air Products Co. of Texas, Harwood  
and Coombs Streets, Dallas, Texas.

### THE LINDE AIR PRODUCTS CO.

"Largest Producers of Oxygen in the World"

Forty-second St. Bldg.

New York, N. Y.

*Let Gravity  
Do It!*

Men are needed "over there." More and more men will be given, cheerfully and generously. Meanwhile labor at home will be scarce. Men—and women—will be required to do more in a given time than ever, Dow Gravity Carriers are helping by saving time and labor, cutting down handling costs and speeding up production.

Write Now for Details  
**DOW WIRE AND IRON WORKS**  
Incorporated

LOUISVILLE KENTUCKY



## "MONARCH WHYTE STRAND" WIRE ROPE

Hoisting Haulage  
MACOMBER & WHYTE ROPE CO., Chicago; Kenosha, Wis.; Pittsburgh

VOL. LXXIV  
WEEKLY

MANUFACTURERS  
HARDICK H.  
FRANK GOL...  
RICHARD H...

NEW YORK  
BOSTON, 73

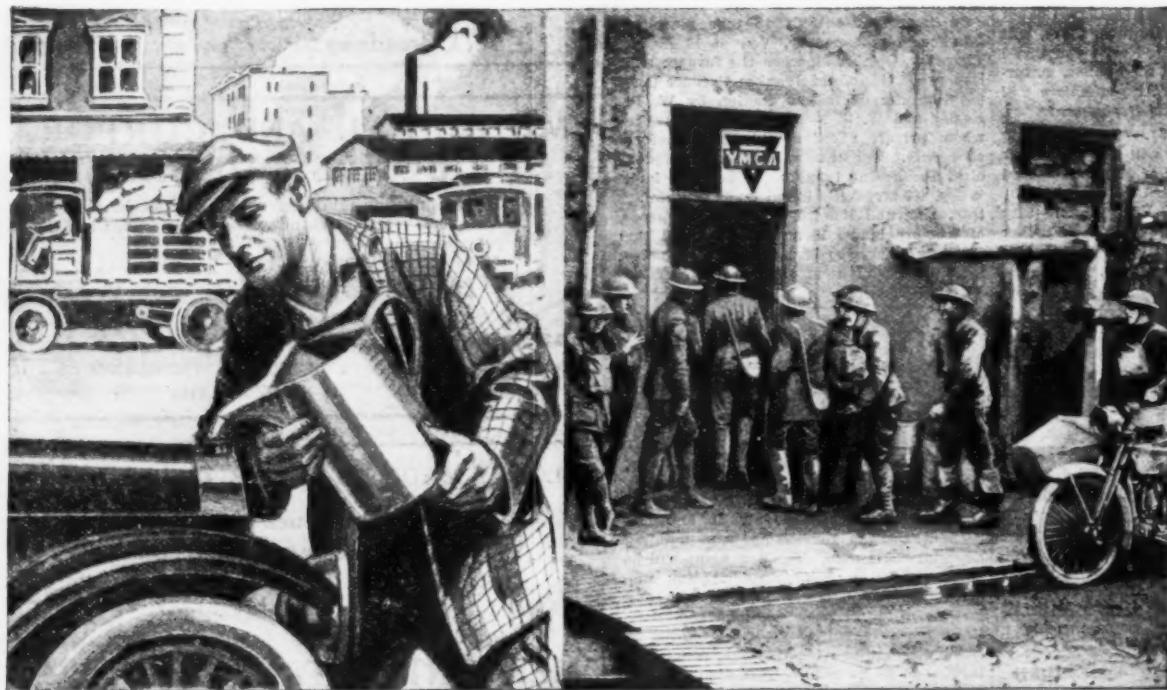
150 a year  
month, \$2,000  
Hawaii and  
year. For  
Back num-  
15 cents each  
each; over  
In ordering  
address  
(Entered at

In order  
new or ad-  
Manufa-  
rial edito

ON T  
UNCO  
PUNI  
LEADIN

Conf  
every m  
Full  
pended  
indemn  
murder





You may want this man here — BUT —

We need him "over there"

## You Can Help Us Get Him

You might think it something of a sacrifice to deliberately talk with one of your best truck drivers and tactfully urge him to go to France to drive for the Y.M.C.A.—and it would be a sacrifice. But it wouldn't be much compared to that of the army boys who have to depend on Y.M.C.A. truck drivers for what little they can get of home comforts—would it?

### The Y. M. C. A. in France Needs 75 Truck Drivers and 25 Automobile Mechanics

every month. And you can help us get them.

We can take only men who are over 37 years old and are not in Class 1 of the draft. The men we want are hard to get at directly.

Will you call the drivers and mechanics in your employ—or whom you know—into a meeting—explain the situation to them—the great need for their service—the great and honorable service they can render—and then put us in touch with the men who may be willing to undertake this great service?

The Y. M. C. A. is doing a great big work in France—it is helping our fighting men to keep in fighting trim.

One of its greatest needs is adequate transport facilities. Y. M. C. A. service for nearly two million men requires a *lot* of transportation work.

We have to move our goods and keep them moving—from ships to warehouses, to canteens, and to points behind—and on—the fighting lines.

We have the goods and the trucks. We need the *men* to man those trucks and keep them going.

You business men—employers—executives of industrial works—can do more than any one else to get those men for us.

Will you do it?

### Fill in the Coupon— Get full data

And then use your powerful influence to help us get these men. Next to going yourself it's one of the finest and most helpful pieces of war service you can render.

Ed M. Willis,  
Y. M. C. A., 347 Madison Ave., New York.

It may be possible for me to get recruits for Y.M.C.A. truck service in France. Please send me full information regarding that service.

Signature.....

Street and No.....

Town and State.....



18

NO. LXXIV, N  
WEEKLY.

PUBL

MANUFACT

RICHARD H. ED

FRANK GOULD

RICHARD

NEW YORK, 52

BOSTON, 733 O

1250 a year  
months, \$2.00 to  
Wall and the  
For other  
Back numbers  
cents each.  
each; over six  
In ordering  
address

(Entered at the

In order to  
news or adverti  
the Manufactur  
several editors, c

ON TO  
UNCON  
PUNISH  
LEADING

Confisc  
every mun  
Full in  
pended by  
indemnity  
murdered,  
invalided,  
every Beli  
compelled  
interests!

A ship  
marines!

Return  
tures to lo

Confisc  
every dol

and its al  
These  
which mu  
else we a  
sponsibili

ON TO

WHAT TH

"—The  
by the sw

"—The

"—My

peace on

And no  
secure a pe  
Americans

"A peace

"A plea

A peace

A peace

May the

shall thus  
become pa

# MANUFACTURERS RECORD

DEVOTED TO THE UPBUILDING OF THE NATION THROUGH THE DEVELOPMENT OF THE SOUTH AND SOUTHWEST AS THE NATION'S GREATEST MATERIAL ASSET

Trade-Name Registered in the U. S. Patent Office

No. LXXIV, No. 18, 1  
WEEKLY.

BALTIMORE, OCTOBER 31, 1918.

\$6.50 A YEAR.  
1 SINGLE COPIES, 15 CENTS.

PUBLISHED EVERY THURSDAY BY THE  
MANUFACTURERS RECORD PUBLISHING CO.

RICHARD H. EDMONDS, Pres. VICTOR H. POWER, Treas.  
FRANK GOULD, Vice-Pres. I. S. FIELD, Sec'y.

RICHARD H. EDMONDS, Editor and General Manager

BRANCH OFFICES  
NEW YORK, 52 Broadway CHICAGO, 405 Fisher Bldg.  
BOSTON, 733 Old South Bldg. ST. LOUIS, 608 Century Building

#### SUBSCRIPTION RATES.

\$2.00 a year (In advance); six months, \$3.50; three months, \$2.00 to United States, Mexico, Cuba, Porto Rico, Hawaii and the Philippines. For Canada, add postage \$2 a year. For other foreign countries, add postage \$4 a year. Back numbers, if available and not over one month old, 50 cents each. From one month to six months old, 60 cents each; over six months old, \$1 each. In ordering change of address, give old as well as new address.

Entered at the Baltimore Postoffice as second-class matter.

In order to avoid delays, all correspondence pertaining to news or advertising matters should be addressed directly to the Manufacturers Record, Baltimore, Md., and not to individual editors, officers, employees or any branch office.

#### ON TO BERLIN!

#### UNCONDITIONAL SURRENDER!

#### PUNISHMENT BY DEATH OF THE LEADING CRIMINALS!

Confiscation of Germany's navy and every munition plant!

Full indemnity for every dollar expended by America and our Allies, and indemnity to the family of every soldier murdered, to every soldier permanently invalidated, to every civilian maltreated, to every Belgian or French man and woman compelled by Germany to labor for its interests!

A ship for every ship murdered by submarines!

Return of everything looted, from pictures to locomotives, in kind or in value!

Confiscation toward these payments of every dollar of bonds issued by Germany and its allies for this accursed war work!

These are a few of the main things which must be demanded of Germany, or else we shall prove recreant to our responsibilities to God and to mankind.

#### ON TO BERLIN!

#### WHAT THE KAISER AND ALL GERMANY SAID.

"—There will be no peace except peace by the sword."

"—The mailed fist is our only answer."

"—My victorious armies will compel peace on our own terms."

And now the cringing cowards are seeking to secure a peace "honorable to Germany," and some Americans are trying to give Germany:

"A peace without humiliation,"

"A pleasing peace,"

A peace "Without Unconditional Surrender,"

A peace without punishment.

May the great God in heaven forbid that crime shall thus go unpunished and that we shall thus become partners in these crimes!

## What Mean These "Healing Peace" Negotiations

Greatly to the amazement of its readers, recently the New York World vigorously asserted editorially that there was no need for America to demand "unconditional surrender" by Germany.

As the New York World has been accounted a mouthpiece of President Wilson, that statement seriously alarmed the country.

The country has a right to be alarmed now that it is reported that the chief editorial writer of the New York World is in Paris as a confidential diplomatic representative of Mr. Wilson to discuss questions of peace.

Considering the position of the World against unconditional surrender by Germany, and the fact that Colonel House is the President's representative at the present time in negotiation with the representatives of the Allies, it is impossible for thoughtful people to avoid something of a shudder as they remember the World's position, and when they bear in mind that Ambassador Gerard, in his book, "Face to Face With Kaiserism," writing of how Colonel House was regarded in Berlin, said:

"The Colonel is so relied upon here that he will be doubly welcome as the bird with the olive branch."

Bear in mind that that statement appears in Ambassador Gerard's book on pages 95 and 96, and in connection therewith note that in the intimate biography of "The Real Colonel House," by Arthur D. Howden Smith, which is regarded as an official statement of Colonel House's life, the following remarkable paragraph appears:

"I think it is my memory of early times in Texas which keeps me from being as shocked as some people are at the dreadful slaughter of this war," he once remarked. "To a man who can remember when bad men killed for sport in open daylight in city streets and desperadoes swarmed in bands and ruled whole tracts of country, the destruction of European lands is not so startling, after all."

Thus the man who is not shocked by the slaughter of this war and is not startled by the destruction in European lands, and who, according to Ambassador Gerard, would be welcomed by Germany as "the bird with the olive branch," and the editor of the New York World, which insists that we must not push Germany to the point of unconditional surrender, are now in Europe, the former as the representative of President Wilson and the latter reported as a semi-diplomatic representative of Mr. Wilson!

Is it any wonder that America is startled?

Is it any wonder that from one end of the country to the other there rises a voice calling upon this country to demand that Germany shall be made to surrender uncondi-

tionally, and that Germany shall be punished for its crimes?

We believe that this demand will be so overwhelming that even President Wilson must reverse the position which he is supposed to hold, and that before the day of election he, too, must come out and demand unconditional surrender by Germany.

We do not believe it possible even for President Wilson to stand against the overwhelming sentiment of the country and of our Allies if he is, as some of his friends claim, seeking "a peace without humiliation" for Germany; and we feel almost safe in predicting that he will undertake to cut from the Republican campaign the strongest position which it could possibly hold in its demand for unconditional surrender by making some of his notes to Germany, prior to November 5th, a demand of that kind.

In the light of the statements which we have quoted in regard to Colonel House, it is interesting to note what Mr. David Lawrence, one of the supposed spokesmen for Mr. Wilson, says in regard to House's visit to Europe. According to this statement, Colonel House has gone abroad to convey to the Allied Governments the President's desire for a "healing peace." It is an amazing statement, but it needs to be read and studied. It appeared in one of the letters of Mr. Lawrence in the New York Evening Post and other papers of October 25. It is as follows:

Colonel House goes abroad at a moment when he can advise the Allied Governments of just what the President's views are concerning a HEALING PEACE, one that will eliminate Kaiserism and large standing armies which will not destroy the German nation, but enable it to be admitted to a league of nations when once it sets up a democratic government responsible to the people only.

Out of the House mission important results are expected to come. He has been singularly successful with European statesmen in the past in bringing them to a better understanding of the American viewpoint than they can get by fragmentary cablegrams in critical moments.

He doesn't exactly speak instead of the President, because Mr. Wilson reserves the privilege of decision for himself in most matters, but he does speak on behalf of Mr. Wilson. He explains the Wilson viewpoint and follows the Wilson instructions and reports back faithfully what is said to him. He is a personal representative of the President because he knows the President's mind well, besides being a close friend and supporter, but he is really an ambassador-at-large with a commission enabling him to enter any capital in Europe and get access to the responsible leaders of the Government as well as all political parties.

Ponder over these facts, study their limitless potentialities for evil, and make your voice heard in a mighty chorus that shall not go unheeded.

#### ON TO BERLIN!

#### UNCONDITIONAL SURRENDER!

### WHAT SHALL BE AMERICA'S ANSWER TO GERMAN PEACE PLEAS?

UNDER the above title we have reprinted in leaflet form the wonderful message to America by Rev. Newell Dwight Hillis, D.D., published in the MANUFACTURERS RECORD of October 17, almost immediately upon Dr. Hillis' return from his second visit to the battlefields.

The title of his article was "The Hour Is Big With Destiny—Only Safe Word Is Unconditional Surrender."

In connection with that article, and as a portion of the leaflet, we have reprinted five recent editorials from the MANUFACTURERS RECORD as to what America's answer should be to every peace plea from Germany and her allies. These editorials embody the statements which have appeared from time to time as to why we should demand unconditional surrender, why our armies should march on to Berlin, why we should inflict the death penalty upon the criminal leaders, why Germany's battlefields and merchant marine should be confiscated as a part payment for the ships murdered by submarines, and why the entire cost of the war to the Allies and America should be placed upon Germany, and the reasons given showing why Germany could pay this stupendous bill.

Civilization faces its most tremendous task and must now prove its right to exist. Is civilization equal to the call of God to punish crime by a nation of criminals as freely as it punishes crime of the individual assassin and raper? If it halts and refuses to do its duty, then surely the nations of the world are not worthy of Almighty God's blessings and should perish from the earth. The 20th verse of the 8th chapter of Deuteronomy says:

"As the nations which the Lord destroyeth before your face, so shall ye perish; because ye would not be obedient unto the voice of the Lord your God."

On to Berlin, and Death to Germanism!

This 16-page leaflet or pamphlet should, we believe, be very widely distributed throughout the country. Elsewhere appears an advertisement giving the price at which it can be had, but we wish to reiterate the fact that any of our readers, whether they be subscribers or not, can republish at their own expense any of this matter or all of it. Our only aim is to spread it broadcast. It is no way copyrighted; it is open to republication by anybody who desires to do so in the interest of the country and of humanity, but if you desire copies of the pamphlet as published by us for distribution among your friends, particulars will be found in the advertisement.

### WHITHER ARE WE DRIFTING?

IMAGINE, if you can stretch your mind to that attenuation the asininity of a resolution offered by Senator J. Ham. Lewis that the Senate vote an approval of anything President Wilson may do in peace matters in advance of his doing it! Is it conceivable that even Germany could ever have produced so asinine a proposition? And yet here is what Lewis, the spokesman in the Senate for the Democratic party, offered:

"That the United States Senate approves whatever course may be taken by the President in the matter of his replies and dealings with the German Government."

"Further, \* \* \* that the Senate endorses and approves whatever methods he may employ to achieve the result of a victorious peace \* \* \* and endorses such determination as he shall reach as to the manner best calculated to preserve the dignity of the nation and its complete vindication."

Have we drifted thus far that not even the vestige of our Constitution is left?

### WHO COUNSELS PEACE?

[Written by Robert Southey, in 1814.]

**Who counsels peace at this momentous hour,  
When God has given deliverance to the op-  
pressed?**

**And to the injured power?**

**Who counsels peace, when Vengeance, like a flood,**

**Rolls on, no longer now to be repressed;**

**When innocent blood**

**From the four corners of the world cries out**

**For justice upon the accursed head;**

**When Freedom hath her holy banners spread**

**Over all nations, now in one just cause**

**United; when with one sublime accord**

**Europe throws off the yoke abhorred,**

**And loyalty and faith and ancient laws**

**Follow the avenging sword?**

### LINCOLN'S PEOPLE.

By WENDELL PHILLIPS STAFFORD, Justice Supreme Court, District of Columbia.

Thank God for Lincoln's people.

The true, plain common folk.

Who mean what they say and say what they mean,

And fight with a straight-out stroke.

They will not parley with robbers;

Nor dicker in blood and death;

They love Grant's ultimatum,

Who never wasted breath.

Diplomacy has twistings

They do not understand:

They know a thug should not be left

With a bludgeon in his hand.

They have a king called Freedom,

And this is the law they make:

If you strike at the king, you must kill him—

Your own life is the stake.

Their feet are on the war-trail;

They will follow till they find.

But he who dares to lead them

Must never look behind.

### WORLD EDITOR ON DIPLOMATIC MISSION.

**I**T became known yesterday that Frank L. Cobb, chief editorial writer of the New York World, is on his way to Europe on a semi-diplomatic errand. Friends of Mr. Cobb said yesterday he was expected to return in six weeks or two months. It is the impression of Mr. Cobb's friends that he is to canvass the situation abroad and report his conclusions to the President.

"Mr. Cobb is one of the very few editors who have had close relations with Mr. Wilson. He has been a frequent visitor at the White House. At the time Lindley M. Garrison resigned from the Cabinet it was said by Mr. Cobb's friends that he could have had the post now occupied by Secretary Baker.

"The World has often been supposed to speak for the Administration."

The foregoing from the New York Tribune must be read in the light of a leading editorial in a recent issue of the World, taking the ground that there was no necessity for the war being pushed to the extent that would require "unconditional surrender" by Germany.

The World has been accounted one of the strong mouthpieces of President Wilson. It has recently insisted that the war must not be pushed to unconditional surrender, and now its chief editorial writer, an intimate friend of President Wilson, is sent to Europe on a secret semi-diplomatic errand.

Who inspired the editorial in the World that we should not demand unconditional surrender by Germany?

From whence came the thought that there was no necessity for unconditional surrender as voiced in that editorial?

We sincerely trust that Editor Cobb of the World did not in any way whatever receive an intimation that President Wilson did not desire unconditional surrender, and we trust he is not in Europe on any mission connected with bringing about a peace on any other basis than that of "Unconditional Surrender by Germany."

### A SUPPOSITION — WHICH DO YOU CHOOSE?

**T**WO men are running for Congress;

Both are enthusiastic for the war;

On that ground they are equal.

One is a Christian gentleman of the highest character, fully equal to Congressional responsibility, an honor to his community and to his country.

The other is a candidate of rotten corruption, basing methods, an upholder of the most disreputable liquor traffic, of gamblers and horse-race gambling touts.

Which do you choose?

President Wilson shocks the world's moral sensibilities, lessens the nation's moral fiber, and says to the young men of the country, "Rotten political gambling, whiskey-upholding men are worthy of your vote if they belong to my party."

Surely the great moral leader of the nation has fallen under the influence of evil teachings.

Come back, Mr. Wilson, to higher standards, for the nation cannot afford thus to be taught that political rottenness can meet with your approval.

### WHISKEY A DEADLY DANGER IN INFLUENZA, AS STATED BY ONE OF WORLD'S FOREMOST PHYSICIANS.

**S**EVERAL years ago, when Rev. F. B. Meyer, D.D., one of the great preachers of England, was in Baltimore, he asked the writer for some information in regard to Dr. Howard A. Kelly, and in connection therewith made the following statement:

"Some time ago Dr. Kelly was to perform a very difficult operation before most of the leading physicians and surgeons of London. Before beginning his work, he somewhat amazed the doctors who had gathered to meet him by asking that they bow their heads while he uttered a prayer that he might be Divinely guided in the operation to be performed.

"This simple and natural act of Dr. Kelly," said Dr. Meyer, "made a profound impression in London, and I have been wondering if it is his usual custom."

Dr. Kelly is one of the world's foremost physicians and surgeons, known wherever medicine and surgery are known. He is an unceasing worker against the liquor traffic as a demoralizing power, for which there is no excuse in morals or in medicine.

Recently the liquor interests of the country have been carrying on a vigorous and aggressive campaign in an endeavor to create the impression that whiskey is essential in the treatment of the epidemic of influenza. Dr. Kelly, than whom there is no higher authority in medicine, in a letter to the MANUFACTURERS RECORD, takes the ground that not only is whiskey wholly inadvisable in the treatment of influenza or of the pneumonia which often follows, but that it is in itself calculated to increase the mortality. And to this Dr. Kelly adds:

"Let me declare emphatically that alcohol is not the slightest value in warding off influenza. On the contrary; it is calculated to do great harm by lowering resistance and inducing the befooled patient to expose himself needlessly."

At such a time as this, when the liquor people are making such attempts to re-establish and revamp the whiskey trade, it becomes the duty of every newspaper which desires to save the lives of its readers to publish the facts as given so clearly by Dr. Kelly. How many of them, we wonder, will do it?

Dr. Kelly's letter will be found elsewhere in this issue.

## President Wilson—"No Scruple of Taste Must in Grim Times Like These Be Allowed to Stand in the Way of Speaking the Plain Truth."

OUR justification for plain speaking today is found in the foregoing statement from President Wilson's political address. By this teaching he has thus made it incumbent for us and others to lay aside "scruples of taste" and in these "grim times" to speak as Americans, voicing deepest convictions, regardless of all personal friendships. It is America today for which men must fight, and not President Wilson or any other man. The nation is greater than any man and the nation now calls, in "these grim times," to lay aside "scruples of taste" and discuss President Wilson's plans as we would those of any lesser man.

Lamentable beyond words to express is the deliberate insult offered in this time of world agony to half of the people of America by the President of the United States. Millions of fathers who have given their sons to die, if need be, upon the battlefields for the safety of the nation and who do not belong to President Wilson's party are deliberately slapped in the face, politically, by the one man who above all others should be far above partisan bias and above such an attack upon the patriotism and integrity of others in such an hour of tragedy and sorrow.

If President Wilson is seeking to bring about, as many fear, "a peace without humiliation for Germany," and, therefore, does not desire any opposition in Congress to that plan, then his appeal to the nation to vote the Democratic ticket for the fall election can be understood, and on no other basis.

At the beginning of the war the MANUFACTURERS RECORD persistently urged upon President Wilson that he should show by every act and deed and word that this is not a Democratic party war, but a nation's war, and that in order to assure the country that it would be regarded wholly from the viewpoint of the nation and not from that of party lines, he should invite into his Cabinet or into some advisory council a number of the foremost men of the opposition party, and in this way secure the coalition of Democrats and Republicans, all seeking only the good of the country and the hastening of our fighting power to meet the terrific dangers which have faced us.

We regret that President Wilson has looked at the matter from another standpoint, and now seeks the election of those committed specifically to upholding his personal views, or else who through partisan domination would vote under the party lash regardless of what might be their conscientious convictions. In this respect Mr. Wilson affronts his own party as well as Republicans.

Since the beginning of the war the Republicans have been the most aggressive upholders of Mr. Wilson's campaign, as far as his campaign meant preparations on the largest possible scale for the creation of a great army and navy and for forcing the fighting. The only way in which the Republicans have in the slightest disagreed with Mr. Wilson has been that they have been more aggressive than some of his plans. They were more aggressive at the beginning than was the War Department, and they ceaselessly have stood by every effort made to strengthen the fighting power of the nation.

It is a well-known fact, known to the people of this country as well as to the people of Europe, that the Republican leaders in Congress and in the country at large are aggressive in the demand that

this war shall be fought to a finish, and to the unconditional surrender of Germany, while many fear that Mr. Wilson is anxious to give Germany "a peace without humiliation." It is not possible, therefore, to accept President Wilson's statement that the election of a Republican Congress would be interpreted in Europe in any other way than that the nation is determined to push the war with the utmost vigor and to demand unconditional surrender for Germany. Our Allies and Germany know full well that the Republican leaders openly demand unconditional surrender and punishment. Does the President go as far as that?

**If President Wilson will now insist that he will use the utmost power of this nation to enforce Unconditional Surrender upon Germany, the death penalty for its criminal leaders and full reparation, restitution and indemnities, he will cut the ground from under the Republicans. Will he do so? If not, why not?**

President Wilson says that the Republican leaders in Congress have been unquestionably pro-war, but they have been anti-Administration, and on this he appeals to the nation not to vote for Republican Representatives or Senators. This puts the matter in an unfortunate light. It is greatly to be regretted that the President of the United States should put himself and the nation in a position that he asks the voters to support Democrats, not on the ground of the war, but as to whether the people have been for or against the Administration, when it is a known fact that the only way in which the Republicans have been anti-Administration in regard to the war is that they have been more vigorous in demanding preparedness for war and in pushing the war than Mr. Wilson himself. Lamentable, indeed, is this position. No wonder intelligent people, Democrats as well as Republicans, profoundly regret that President Wilson has thus lowered his own dignity.

Regardless of the character of some who may have been nominated by the Democrats, even if they be disreputable whiskey-upholding men, if they bear the Democratic tag and will be subservient to Mr. Wilson's views, they must, according to the President's demands, be elected. Under this request the most disreputable politician in the country may receive the enthusiastic endorsement of the President of the United States as against the most thoroughly upright, conscientious, patriotic and Christian gentleman. The voters are thus asked to stultify their conscience and their manhood and vote for some unscrupulous, dishonest politician merely because he wears the Democratic tag. This amazing appeal comes from the President of the United States, who should be the leader of the moral forces of the nation.

Mr. Wilson has made a mistake. His warmest friends cannot possibly in their hearts avoid realizing that the blunder is so great that it seriously handicaps all of his future work.

Since it was established, this paper has been absolutely non-partisan. It knows neither friend nor foe so far as politics is concerned. And from the beginning of the great world-war, in 1914, until April, 1917, the MANUFACTURERS RECORD gave its energy largely to the one supreme task of arousing this nation to the certainty that we would become involved in war and to our duty to be ready for it.

Since America entered the war we have never ceased to urge that we shall carry it forward on the largest possible scale to overwhelming military victory, and to the adequate punishment of the greatest criminal nation of history.

If we felt that the election of a Democratic Congress would better serve these ends and protect and safeguard the future of this nation and of civilization than the election of Republicans, we would of necessity have to desire an overwhelming Democratic victory, but in view of the issue raised by President Wilson and of the fear that he seeks to save Germany from punishment, we are compelled to believe that the only ground on which he could have made the statements which appear in his appeal is that he desires a Congress which will accept his dictation in the making of peace terms, even if those peace terms should not be in harmony with the moral sentiment of this country.

There are sinister rumors abroad that it will be the aim of President Wilson to bring about a peace without punishment of Germany, a "pleasing peace," a "peace without humiliation to Germany," and however strong he may denounce the German Government, that fact counts for nothing until he recognizes that the German nation as a nation gladly and joyously entered upon the war for the purpose of murdering millions and looting the world. The German Government could not have carried on the war if it had not been backed by the German people, and one expression of the views of the German people is found in the statement which we lately published, in which the Baptists of Germany, who are certainly not connected with the military or governing element, recently officially insisted that the "German Government had done nothing contrary to the wishes of the German people."

It is with such people as these that the nation must deal. They cannot be reached in any other way. The German Government might meet President Wilson's demand for an overturning of the present autocratic power, and yet Kaiser Wilhelm as King of Prussia (and for the first time in any of Mr. Wilson's correspondence the Kaiser was last week mentioned as "the King of Prussia") might be overthrown as the German Emperor and still continue as the King of Prussia. Should this come about, the German Government would have met Mr. Wilson's requirements by temporarily getting rid of the Kaiser while Prussia might hold him as its honored King, and this would give him the chance the moment peace was declared to reorganize the military element and re-establish the Empire of Germany and again lord it over all.

Our task is the death of Germanism. Our task is to conquer Germany and punish with death the criminals who have brought on this war and to lay upon the German nation a penalty equal to the entire cost of the war to all of the Allies and America included, and then, and then only, will German people believe that right is greater than might. Then, and then only, will they believe that their nation has really been defeated.

If our armies are halted outside of Germany by any form of surrender, and are not permitted to enter Berlin, the German people as a whole will never believe that Germany has been licked, and until the German people from the highest to the lowest see the flags of the Allies and of America floating in triumph over Berlin, and until there are some millions of our soldiers and those of the Allies marching through their country, they will never believe but what Germany has merely made a temporary truce in order to get ready for the next war.

Therefore, in the coming election, we believe that,

entirely disregarding President Wilson's erroneous and much-to-be-regretted political appeal, the voters should vote, based on the moral standing of the candidates and on their enthusiastic, undying determination to force this fight to a finish and to settle it in Berlin, and to so legislate afterwards that our country shall not become the dumping ground for German goods.

Any man who in such an hour as this permits the President's appeal to cause him to vote contrary to his convictions will be false to civilization, recreant to humanity and a cowardly follower of the party line.

#### ON TO SODOM!

**Germany is seeking to move hell and earth to keep the armies of America and our Allies from invading their country. They will do anything in the way of a nominal change of government; they will sign treaties with pens dipped in hypocrisy and lies in order to say to their people that no American or Allied armies ever invaded their country, and within a few years the German people, it matters not what form of government they have, will be planning for another war unless Germanism is CRUSHED NOW.**

**The German nation and the German people, regardless of the form of government, are murderers, liars and hypocrites, burglars, freebooters, thieves and rapists, and if here and there may be found a lot among them their number is too small to affect the situation or to save this Sodom of rottenness from punishment.**

#### ON TO BERLIN!

#### THE KIND OF A DEMONSTRATION AGENT TO HAVE.

**YAZOO county, Mississippi, has become a fine stock-raising county because one man's energy was so great that things had to move out of the old one-crop-cotton rut into which they had become fixed. In a note accompanying an article on the development of stock-raising in Mississippi, our Jackson correspondent gives this sidelight on the compelling force of Yazoo county's demonstration agent:**

Pig clubs made the hog business in Mississippi, and that isn't a bit of an exaggeration. This man Ritch in Yazoo county is a wonder. He's the most energetic person I ever saw, and carries around more common sense than 10 average demonstration agents. They all do good work, these agents, but Ritch is a king-pin. He and a queer-looking Ford have given Yazoo county a new lease on life. The folks over there say his flivver doesn't need any gas; that it just has to run when he gets in it because of his own energy.

#### WHAT THE LIQUOR TRAFFIC DOES.

**T**HE Hillsborough County (Fla.) Prohibition Club has issued an advertisement against the whiskey traffic, in which it says:

"The MANUFACTURERS RECORD, that great industrial luminary that shines forth from Baltimore with regularity and great brilliance, is no straddler. To use a slang expression, it doesn't wait to see which way the eat is going to jump; it makes no Bulgarian peace. What it is for, it is for, and what it is against, it is 'agin' with all its power. With a broad and clear insight into industrial and commercial conditions of the country, it has waged a relentless war on the liquor traffic for years."

Yes, the MANUFACTURERS RECORD is against the whole liquor traffic, a business which in its villainy matches the villainy of Germany's war upon civilization. The liquor traffic lives on the tears, the broken hearts, the besotted manhood, the lost souls of those who come under its accursed power. It marshals its forces for corruption of the young, it encourages immorality, it thrives on crime and creates crime for its own prosperity, it betrays youth and sends young and old of all classes and both sexes to ruin here and to eternal death as a part of its regular daily work. It lessens the economic power of the nation and enormously increases the deaths of our soldiers and of people at home by lessening the output of coal and other things needed for the war.

#### IS THIS ANOTHER PRO-GERMAN SCHEME?

**T**HE organization calling itself "World Peace Association," with headquarters at Northfield, Minn., is sending out broadcast a publication entitled "Light," which carries the statement that "it is published entirely in the interest of humanity." "Darkness," we think, would be a better title.

A brief examination of it creates the impression in the mind of any intelligent man that it is more than likely that the "interest of humanity," as viewed by "Light" is in the interest of Germany.

The fact that it carries an enthusiastic endorsement from Senator LaFollette is, of itself, enough to damn it in the eyes of all decent, self-respecting Americans. Many of the other endorsements are from names which are, to say the least, suggestive. They include, for instance, such names as Buchheit, Erickson, Trechsel, Schoof, Krohn, Leibenow, Knackstedt, and many of the same kind.

It also carries a letter of endorsement from "Miss N. L. Miller, president of the A. W. S. N. of Roland Park," in which Miss Miller writes:

"We are very glad to know that your organization is working for the cause of humanity, as we are doing and have done for months past."

Now, it so happens that Miss N. L. Miller of Roland Park, Baltimore, was the organizer of and president of the society known as "The Organization of American Women for Strict Neutrality" for which the initials "A. W. S. N." we presume, stand. That organization was founded shortly after the beginning of the war by a lot of German women, some of German birth and some of German descent, who camouflaged in Baltimore and elsewhere as American women working wholly in the interest of peace, when they were mainly Germans or of German descent, working wholly to prevent the shipment of munitions to Europe in order that Germany might bring about peace through the destruction of its enemies. The organization had its headquarters in the home of Miss Miller, a rich woman of German descent. It flooded the country with circulars for peace, but neglected to be honest enough to say that the only peace it desired was a German-made peace by keeping America from supplying munitions to the Allies in order that Germany might crush and destroy the Allies and thus destroy civilization. Some of its members had been hating England for years more than they hated the devil himself. It has been stated in some of the newspapers that part of the funds with which this organization operated was furnished through an emissary of the German Government. Every move it made was specifically and directly to mislead the country, and to claim it was working for humanity and peace when it was working wholly in the interest of Germany. It is, therefore, very appropriate that its president should commend the organization headed "World Peace Association," if that is a rotten German propaganda scheme as we rather suspect. We think it probable that Miss Miller's letter is of rather ancient date, for we believe it has been regarded as unsafe for that organization to be in existence since the United States has been at war.

Our readers need to beware of all such so-called "peace" or "humanity" organizations, for some of them are managed with such ingenuity as to deceive even a few intelligent people, though they usually depend upon catching suckers and fools, of which the world is, unfortunately, very full. One can come nearer having some respect for a rotten-hearted German in rotten-souled, rotten-bodied, rotten-hearted Germany than for a pro-German in America.

#### READS EDITORIALS WITH KEEN INTEREST.

**F**ORMER Ambassador to Germany, Mr. James W. Gerard, in a letter to the MANUFACTURERS RECORD writes:

"Many thanks for sending me the reprint of those splendid editorials and articles which appeared in the MANUFACTURERS RECORD.

"I read them with keen interest, and only wish to urge you to keep up your good work."

#### EVERY PAGE A WOMAN'S PAGE.

**T**HE United States Fuel Administration, in a letter to the MANUFACTURERS RECORD, sends two manuscripts dealing with the necessity of conservation, expressing the hope that "they will be given space on the Woman's Page."

Now, it so happens that every page of the MANUFACTURERS RECORD is a woman's page. We have a page set apart especially for the frivolities of fashion or society; we have no page which tells of how to can vegetables or to train babies; no page of worthless, sentimental stories, and all of these things are usually found on the so-called "woman's page" of most of the leading daily papers. But we have many pages vibrant with interest to every woman, for, directly or indirectly, as mother, wife, sister or sweetheart, or as a lover of civilization and humanity, every page thrills with interest to every woman.

Every page deals fundamentally with the greatest issue which the world has ever faced, except the one supreme issue of nineteen hundred years ago when Almighty God, through the death upon the Cross of the Christ, offered to mankind eternal life. Nothing else since then is more worthy of every woman's consideration in comparison with the tremendous issue which the world now faces.

The forces of Heaven and the forces of Hell are engaged in this gigantic struggle, and to the people of America and our allied countries Heaven has committed the task of service and sacrifice so that civilization and Christianity itself may be maintained upon the earth.

What else is there, therefore, of such vital interest to every woman than the facts which pertain to this great issue. If there is in this land a single woman who is not interested in this question above all others, then she must of necessity be a woman without heart or soul or brain, or else a pro-German worker, and that means a pro-devil co-operator.

We rejoice that many women are reading the MANUFACTURERS RECORD in order that they may come in touch more closely than they could otherwise do with what this war means, and so long as this war lasts there is little else in all the world worthy of thought or discussion. Every subscriber should see that his wife and daughters have the opportunity of reading the MANUFACTURERS RECORD, for those who do this write of the enthusiasm of the women folks about it.

In the broad aspect of world affairs this is a struggle not of individual against individual, but of civilization and Christianity as a whole against barbarism and atheism, and upon its outcome will rest the future of billions of people yet unborn and of all the world for centuries to come. This, therefore, is the reason why every page of the MANUFACTURERS RECORD is a woman's page, and why the appeal of the Fuel Administration for conservation of fuel and lights is an appeal which should be heard and appreciated by every woman in the land.

As the Fuel Administration suggests, there are many ways of saving fuel, and the saving of fuel means the saving of the lives of our soldiers. We are often using too much gas or electricity or coal oil. Many lights in halls and bedrooms and elsewhere could be reduced without serious injury from the lessening of the brilliancy of illumination. Many hotels could cut out half of their electric lights without any serious diminution of comfort on the part of the guests. The vast waste of fuel through the brilliant illumination of such resorts as Atlantic City and the enormous amount of lights used for electric signs could be tremendously curtailed. No one can enter any of the great hotels at Atlantic City or step on the Boardwalk without being amazed at the wild waste of fuel and lights. But what is true of Atlantic City is true of many other places in towns and in cities and in private homes. Well may the Fuel Administration urge the people of America to "think of light in terms of lives."

Every unnecessary light adds to the burdens of our soldiers and lessens the facilities of the Government for providing our men with food and fuel, with munitions and with ships.

Save light and thus save lives.

HOW AM

ADAMS DU

THE first

KNOWING

THE

KNOWING

## HOW AMERICANS HELP HUNS SPREAD PRO-GERMAN TEACHINGS.

MANY patriotic Americans are unconsciously helping the Hun throw monkey wrenches into the machinery of American business, says Mr. R. Adams Dutcher, a member of the Minnesota section of the American Chemical Society. Two very striking instances of how the German propagandist works his nefarious game were brought out at a recent meeting of the American Chemical Society at Cleveland, O.

The first case was cited by a prominent American dye chemist. This gentleman related how, upon opening his package of laundry, he had found a slip of paper stating that since German dyes were off the market laundrymen could not guarantee the domestic dyes and the customer was advised to refrain from buying colored wash goods until after the war.

Knowing this to be untrue, the chemist asked his laundryman where he had obtained such misleading information. The laundryman stated that a laundry journal had been authority for the statement. The editor of the laundry journal said that he was given the information by an officer of a laundryman's association. When this officer was approached on the matter he admitted that he had been responsible for the information, but went on to say that he obtained the information directly from an official of a German company, and then the laundry official clinched his argument with the remark, "these people certainly ought to know." It did not take the chemist long to show the official that he was not only helping the Hun, but that he was hurting the sale of American dyes, which, dye for dye, were fully equal to the German product.

At another time a dye chemist noted the following sign in the bathing suit department of a large New York store:

"Owing to Present Conditions in the Dye Industry, We are Unable to Guarantee the Colors of These Goods."

When questioned closely regarding "before-the-war" bathing suits, the management was forced to admit that it had never guaranteed bathing-suit colors not to fade. "Why, then, do you infer that present conditions have anything to do with the colors in bathing suits?" The management immediately realized that the store was really spreading Hun propaganda, and the signs were removed and replaced by the following:

"We do not guarantee colors in bathing suits not to run, and have never done so. We know of no reputable house that will guarantee colors when exposed to the sea water and sunshine."

The American people should feel proud that the American chemist has been able to accomplish as much as he has in the short time that he has been working. He has absolutely duplicated the German dyes, shade for shade, strength for strength, and quality for quality. Many American dyes are far superior to the German product, for the reason that American ingenuity has improved upon the quality of the raw materials from which the dyes are made, and American honesty is producing a purer product which is not adulterated with inert materials, as was the case with the German product before the war.

Let us realize that the more we insist on "Made in U. S. A.," the better will be the product, for no American manufacturer can put his best efforts into making high-grade products if he is not encouraged morally and financially by a loyal American public.

## GERMANY'S TERMS TO FRANCE.

"WHEN Germany conquered France in 1870, she would not even grant France an armistice until she surrendered the 25 forts surrounding Paris. Germany's peace terms were the relinquishment of Alsace-Lorraine and the payment of a billion dollars, a huge sum at that time. And the German troops remained in France, too, let it be remembered, until the last cent of the money was paid. Has Germany any reason to expect any easier terms now than she granted then when the victor?"—Concord (N. C.) Tribune.

Correct, but Germany now seeks to keep our armies away from its sacred precincts and cries for a peace "honorable to Germany."

## ON TO BERLIN!

# Dynamic in Its Deadly Dangerous Potentialities

## PRESIDENT BRINGS ABOUT DIPLOMATIC CRISIS OF THE WAR

**Not Only Asks Germany But the Allies Whether They Agree to His 14 Peace Points.**

## MUST HAVE CLOSEST UNITY

**Germany Could Use Differences of Opinion to Her Own Advantage.**

By DAVID LAWRENCE.

(Copyright, 1918, by New York Evening Post, Inc.)

(Special Dispatch to The News.)

Washington, Oct. 24.—Far more than the text of President Wilson's note itself reveals is there a significance to the step taken by the United States Government's positions on peace terms, a step that may well be described as the most serious in the diplomacy of the war itself.

For not only has the President just made answer to Germany, but he has also asked of the Governments associated with the United States whether they agree with his 14 principles of peace.

### Allies Make No Response.

Mr. Wilson made a most important address on September 27 asking the Allied statesmen to speak their minds on the fundamentals of peace as viewed by the United States, but no explicit response came back. Earlier in the year, indeed, just after the President's address of January 8 proclaiming the 14 articles of peace, Premier Lloyd George and Premier Clemenceau expressed their approval in public speeches, but there never has been a formal acceptance of the 14 peace terms by the Allies themselves.

Germany knows this and many people think that was the real reason for her return to those 14 peace terms as a basis. Germany, moreover, may be seeking an opportunity to develop her own interpretation of these 14 articles. If the Allies at this time discussed them in detail and revealed plainly their disagreement, Germany would use the replies in an effort to divide the Allies and to show her people that England and France are really blocking peace.

### Would Use Differences.

She would use difference of opinion to get out of a diplomatic hole, because it would be easy for her to argue that she had accepted the Wilson terms and not the Allied interpretations, and that while an armistice under the conditions proposed might safeguard the military interests of the Allies, it would not safeguard the political interests of the German people, who after all are most concerned about their own economic existence.

So the big developments of the peace correspondence must now be expected from Great Britain, France and Italy, and not especially from Germany, for it is fully expected here that Germany will meet the American Government's latest note with a demur. She will wait to see if Great Britain and France and Italy mean the same thing about peace that President Wilson does. Her answer may be "before making any reply on the subject of an armistice, we will await the expression of the Allied Governments."

### An Explanation or Interpretation Thereof.

Mr. Lawrence is generally credited with being a mouthpiece or spokesman for President Wilson, and the Baltimore News, to which he sends these letters, recently said:

"David Lawrence, whose Washington dispatches appear daily in the News, is said to be able to predict with more accuracy than any other Washington correspondent what President Wilson may be expected to do in any given contingency."

According to this supposed spokesman for Mr. Wilson, he has created an intense or acute diplomatic situation by demanding that our Allies shall specifically announce whether or not they accept in full his fourteen peace proposals.

No human being can decide exactly what these proposals mean. They might mean one thing to one man and another thing to some one else. Mr. Wilson has already radically changed one of them as to the Czecho-Slovaks, and neither the Allies nor Germany can say what all of the others mean. Moreover, they open up questions of such tremendous import as to the right of every country or every people to definitely say under what Government they will live, that if put into effect in 1861 they would have compelled the United States to permit the South to set up its independent government, and they would today give any part of this country the right to secede; they would give Porto Rico, the Philippine Islands and Hawaii the absolute right of "self-determination" as to whether they wish to set up independent governments or not, and if they desired to secede from the United States we could not deny them that right. Alaska might withdraw from the United States, and we could not say nay, or Alaska might decide, say, to join Canada, and we would have no right to refuse. Even if by chance it voted to join Japan we could not prevent it. If we should adopt Mr. Wilson's "self-determination" plan for every people in the world, India and Egypt might wish to secede from Britain's control, and Mr. Wilson's plan would compel Britain to agree without quibble.

In connection with this study of President Wilson's peace proposals, as it relates to "self-determination," we must consider one paragraph in his Fourth of July address at Mt. Vernon, which was:

"The settlement of every question, whether of territory, of sovereignty, of economic arrangement, or of political relationship, on the basis of the free acceptance of that settlement by the people immediately concerned, and not upon the basis of the material interest or advantage of any other nation or people which may desire a different settlement for the sake of its own exterior influence or mastery."

On that point we repeat our editorial criticism of July 11 last, in the course of which we said:

"That is a position which we do not think this country has any right to assume. We do not believe that the American men and women who are giving their sons to this war are doing so for the purpose of setting up this lofty idealism: nor do we believe that the men who are engaged in this contest and are offering their lives on the battlefield are laboring under any thought that they are engaged in a war for the purpose of settling every question pertaining to territorial rights of all the nations of the earth. We cannot settle the question as to what shall constitute a 'free acceptance' by the people immediately concerned' of governmental and economic plans in all of Russia, nor China, nor Japan, nor India, nor South America, nor in our own Island possessions. We cannot say that if the Filipinos demanded to be freed entirely from control of the United States that it would be the part of wisdom at the moment to separate them from this country. We cannot say that if the people of St. Thomas, or of Porto Rico should prefer their own form of government that we shall immediately grant them complete independence without regard to what influence it might have upon the future of this nation. We cannot say what shall be the relation between Africa, the isles of the sea, India and Egypt and other countries. When we attempt to move into that far distant sphere we are going beyond the limit of our right and of our power."

"We would regard it as a direct insult to the United States if any country on earth should say that willingly or unwillingly we must abandon the Hawaiian Islands, the Philippine Islands, Porto Rico or St. Thomas. We bought St. Thomas without any thought whatsoever as to whether the people on that island wished to be under the domination of the United States or not, and we do not believe it conceivable that this country would take the position that it must abandon this island which we bought for our own protection should the inhabitants decide that they do not want to be a part of this country."

"President Wilson emphasized the fact that the question of territory, of sovereignty, of economic arrangement, or of political relationship must be settled upon the basis of the 'free acceptance' of that settlement by the people immediately concerned, and not upon the basis of the material interest or advantage of any other nation or people." Under this condition if the St. Thomas Islanders desired to be an absolutely independent country, we would have no possible right to deny them that privilege. Should the Philippine Islands, and the Hawaiian Islands, and Porto Rico desire their independence, we would be compelled to grant it to them under President Wilson's plans: for we could not deny to them the right to do that which we are demanding for all the countries in the world. Indeed, broadly stated, if Alaska should vote that, since it was bought from another country, it did not desire to be a part of the United States, and desired its own independence, we would have no right to hold it under our domination.

"We are afraid that Mr. Wilson ventured too far afield and permitted his dazzling power of expressive English and his idealistic imagination to go beyond the safety line, and to lead him out into the twilight zone of uncertainty and danger.

"What this country, in our opinion, is called upon to do is not to lay down theories as to the government of other countries nor to state the terms upon which all the nations of the earth shall adjust their

affairs. We do not understand that this is the thing for which we are fighting. What we are fighting for is to save ourselves from destruction by an enemy, the barbarism of Germany, and to destroy that particular barbarism so that it may never again drench the world in blood. But we are not called upon at the present time to set up for all the world an idealism and a Utopia beyond the power of mankind so long as the world is composed of divergent influences, and until humanity has reached the point where the lamb and lion lie down together in peace. Beautiful in theory, but evanescent in this world of realities, is Mr. Wilson's plan for settling all the problems of the earth on the basis of 'the free acceptance by the people immediately concerned.'

#### Dynamic in Danger.

With this situation, dynamic in its danger, Germany, according to Mr. Lawrence, is fully cognizant and is therefore seeking to deliver a blow through its letter writing, which may explode the dynamite, and it is doing all in its power to strike that blow, and by one desperate explosion wreck the alliance between America and the Entente, and through its devilish Bolshevik work bring chaos to America as it did to Russia.

We warn the nation that there is tremendous danger in this critical situation, unless Mr. Lawrence has absolutely misrepresented Mr. Wilson and has made statements directly contrary to Mr. Wilson's views. Even, however, if this be true the situation developed by the correspondence with Germany and the insistence upon the fourteen peace proposals contain elements of deadly potentialities.

America has no right to dictate to our Allies the peace terms which they shall accept. To suggest such a thing would border on national vanity and presumption which would justly bring upon us the criticism of the nations which fought for three long awful years against barbarism, nations which saved us from ruin. Let us never for one moment forget that our existence as a nation, saved from German domination and damnation, is due to the heroic armies and the battle fleets of our Allies.

#### Needs Unity of Allies.

It is here that the unity of the Allies must come into play; it is here that the closest kind of co-operation must ensue. Again the latest note may be described as bringing the diplomacy of the war to a real crisis, for if the President's democratic aims are not shared by the Allies it is possible that the prestige of our co-belligerents will not be as great as it has been before and the interest of the American people for aims now revealed in selfish terms may be considerably altered.

It is a time for plain speaking. While the men at the head of the Government of the United States want to see the Kaiser and Kaiserism exterminated, they are also anxious that there be a peace based upon justice. Mr. Wilson said in his New York speech that every nation, whether it be friend or foe, must come to the peace table ready to pay the price.

That price is the subordination of such purely selfish desires as represent the viewpoint merely of special interests and privileged classes, and for which the whole world ought not to be asked to prolong the war one moment longer than an accommodation of the rightful interests of all the nations involved can be obtained.

The British Labor party and the French Socialists have subscribed to the President's war aims. To an unprecedented degree does Mr. Wilson, a foreigner, have the confidence of large sections of French and British public opinion. The President feels that America has gone into this war unselfishly, has shed her blood for the cause of democracy, and anything that is at variance with democracy or the permanent interests of an international brotherhood should be dropped from the Allied peace program.

There must forever be amplification of even acceptable principles, but it would be embarrassing, according to the views of the men with whom I have talked, if the Allied Governments yielded at this time to the various elements, Socialists and Conservatives, and pronounced themselves in detail on peace terms.

There will be plenty of opportunity later on for the explicit digression from any interpretation of the articles which may affect adversely the national interests of any Allied Power. For the pres-

#### Needs Unity of Allies."

This is a suggestive innuendo or slur against our Allies which should make the blood run red hot in every heart. Here is a distinct intimation that if the Allies do not accept terms laid down and dictated by us, then they are charged with selfish interests and their "prestige" may be lessened because they do not think exactly as President Wilson thinks. They did not think that way when he said that Europe must have "peace without victory," which he has since changed by saying we can have "no peace without victory." In which position was he right—before he reversed himself or since?

Mr. Lawrence, who is supposed to be a spokesman for the President, says that this is a "time for plain speaking," and that while the men at the head of the United States want to see the Kaiser and Kaiserism exterminated, they are also anxious that there shall be a peace based on justice; and he lately credited Mr. Wilson as demanding that every nation, "whether it be friend or foe," must come to the peace table ready to pay the price.

Last week we quoted Mr. Lawrence as saying that the President desired to give to Germany a "pleasing peace," and that the President would not permit "friend or foe" to change the fourteen peace terms laid down by him last January.

The President here is quoted as feeling that America has gone into this war unselfishly and has shed her blood for the cause of democracy. If this is Mr. Wilson's idea, it is absolutely incorrect. This country went into the war for the purpose of saving itself from destruction and of punishing the red-handed murderers who killed its own citizens and women and children on the Lusitania. These murderers filled this land with spies and other murderers, bomb-throwers and munition plant destroyers.

It was not unselfishness which sent us into the war, but a spirit of selfishness and self-respect which compelled us to enter the war, or else lose the soul of the nation.

We are not in this war merely "to make the world safe for democracy." We are in this war to save the women and children of America and the women and children of Europe from the most brutal beasts that ever cursed the world with their presence.

#### A TYPICAL ILLUSTRATION OF HOW THE HUN CONTINUES HIS FIENDISH WORK.

A STORY direct from the captain of a torpedoed ship to a Y. M. C. A. worker, strikingly shows the spirit with which the Hun is carrying on his war. The story is as follows:

Not long since this captain's Norwegian ship was sighted by a German submarine and ordered to halt. The captain stopped the ship, thinking that after investigation he would be permitted to go on his way. But instead of that the ship was fired upon and in a few moments began to sink. The captain ordered the life boats out. Three of them were filled and pushed off just as the ship sank. The people in the boats felt that they would be allowed to drift until picked up by some passing vessel. But not so. Orders were given and the submarine fired on the boat nearest to it, then on the second, sinking both of them. There was a mother with her baby on the third boat. The captain suggested to her that she stand up and lift her baby as high as possible and at the top of her voice cry for mercy, thinking that when the Huns saw the baby they would at least spare the boat, but vain is the hope of mercy from a Hun. The mother's appeal with the uplifted baby was responded to by a quick shot from the submarine which hit the boat, killing several of the passengers and sinking the boat. Most of the people had on life preservers and were soon floundering in the water, still hoping to be rescued by some passing vessel. But the submarine came closer and the men on board drew their revolvers and commenced shooting the people in the water one at a time. Before they had quite finished the job of thus cold-bloodedly murdering all of the people who were in the water, a submarine chaser appeared on the scene. The submarine immediately submerged, leaving three survivors who were picked up by the submarine chaser. One of them was the captain of the torpedoed ship who told this experience.

It is scarcely conceivable that there should be living in this day savages of such inhuman brutality as these Huns, and one might almost doubt the sanity of the captain who made the statement if it were not that his report is but in keeping with the facts which are being constantly developed as to the fiendish work of Huns on land and sea.

Another story matching the atrocity committed upon the Swedish ship was that with which Germany's fiends sank the American ship *Ticonderoga*.

One of the men, Mr. Leonard, saved from that ship came to Baltimore to tell the story to the parents of a Baltimorean, Bobby Burns, who was lost. In order that his parents might know exactly what happened. The story given in the Baltimore Sun by Mr. Leonard is as follows:

"As fast as we dropped a boat into the water the Germans fired upon it. We had 14 boats, and most of them were crashed to pieces before our eyes. We could not fight any longer because they had shot away our other gun. One of our crew, a lad named Edward Davis, from Warrenton, N. C., as game a boy as ever lived, swam to the side of the U-boat, which was hardly a thousand yards away, and pleaded for the lives of the men aboard the sinking ship. When he told the Huns they were killing everyone, a German officer stepped forward and shot him through the head. \* \* \*

"They ordered the captain to stand forward, but it was explained that he was very badly wounded and we requested some surgical dressings. The reply to our request came from one of the Huns, who said the only thing he would give us was an eight-inch shell. \* \* \*

"All during the conversation we were tied to the sub, our bowline having been made fast to their stern. When the hatches were closed the U-boat started below with our lifeboat attached, but somehow the rope either broke or was cut, for we were free at last. After four days of drifting, we were picked up and brought home."

#### AS VIEWED BY DR. HILLIS.

REV. NEWELL DWIGHT HILLIS, D.D., in a letter to the editor of the MANUFACTURERS RECORD, referring to the telegram sent last week to President Wilson, writes:

"I want to congratulate you upon your splendid telegram to the President. It was published today in full in the *Globe*, and I am sure will have wide influence. No clearer, stronger statement of the issues before the American people has been made than the one found in your open letter."

out Mr. Wilson is dealing with broad-gauged principles.

#### The Would Welcome Dissension.

Germany would like to see dissension on details. If the Allies confine themselves at this time to an acceptance of Mr. Wilson's 14 principles, reserving to themselves the right at the proper time and occasion to speak their interpretation of those principles, Allied unity will have been preserved and the assumed effort of Germany to divide the allies will have been completely frustrated.

In a nutshell, the President has by his last note differentiated between the political and military phases of peace negotiations. In America there was exhibited an impatience with peace talk, it being a trick of the enemy to improve his own military situation at the expense of the Allies. There was a demand, moreover, for no parleying with Kaiserism.

#### Talk Peace With German People.

Both of these Mr. Wilson endeavored to meet in his last note. He will talk peace with the German people when they are rid of Kaiserism. If they remain the militarists, the only terms are surrender.

The President has no patience with those who argue that there should be no talking at all, but only fighting. Those critics do not know the tremendous expense in human life of such a policy, as it means at least two years more of incessant fighting, and possibly more, to conquer a whole nation. He believes the ends of the Allies can as well be accomplished by political revolution inside Germany, which shall not only punish the culprits who started this war and bring reparation, but shall also set a democratic government in Germany which can be admitted into a league of nations. The dangers of the policies of the extremists is that they would lead either to Bolshevism throughout Europe, with a reign of terror inside Germany that would give no reparation and teach no lesson, or would lead to a fight to the finish by a people who believed they might as well die fighting rather than submit to an enemy who intends destroying them anyway.

As the situation is viewed in Government circles, not only would the American people disapprove of such a course, did they truly understand that it merely meant a war of extermination, with heavy sacrifices, that would get no more in the end than the present course is expected to get, but the Allied peoples, who have been in the war four years, would not sustain a bitter-end struggle, unless absolutely necessary to get the right kind of peace.

articles which may affect adversely the national interests of any Allied Power. But Mr. Wilson has insisted that the fourteen peace proposals shall be accepted, and Mr. Lawrence says that the President has determined that they shall "not be changed by friend or foe."

Some of these peace terms will be absolutely contrary to the best interests of America. As laid down by Mr. Wilson he proposed "the removal so far as possible of all economic barriers and the establishment of an equality of trade conditions among all nations consenting to the peace and associating themselves for its maintenance."

Under this it might be insisted that absolute free trade between America and all other countries was one of the essential factors in these peace proposals. This statement is merely an idealistic expression without any force or meaning, or else it is a specific upholding of the right at the peace conference to settle all questions of tariff or free trade between all the countries of the world. The potentialities for evil in this are as great as the potentialities for evil in some of the other peace terms. This country might be engulfed by the rush of goods to America without any protection whatever, which would bring about chaos in all business interests in America. The dangers inherent in this peace proposal are great enough to make the entire American people stop and think. Mr. Wilson's explanation on Monday last that this is not the meaning only shows how impossible it is to interpret the real meaning of any of these fourteen proposals.

**Nothing that has been said in these peace proposals indicates any determination on the part of the Government of the United States to insist upon adequate punishment of the criminals guilty of these fearful crimes, nor for any indemnity placed upon Germany for the payment of the vast losses which it has brought upon the world.**

We trust that Mr. Lawrence is entirely in error when he says that "the President has no patience with those who argue that there should be no talking at all, but only fighting," on the ground that they do not know the tremendous expense in human life of such a policy, as it means at least two years more of incessant fighting, and possibly more, to conquer a whole nation. **No one knows more deeply, deep down into their very souls, what this fighting means than American fathers and mothers. They know it as Mr. Wilson cannot possibly know it. They know it because their loved ones are in the battle front, and many of their sons have already died for civilization. They are the ones who can comprehend it far more deeply than it is possible for any man to do who has no sons to die on the battlefield.**

**We cannot believe that Mr. Wilson is correctly interpreted. We believe this statement of Mr. Lawrence is a definite, diabolical statement of pro-Germanism to discourage America by seeking to make out that to push the war to the limit of unconditional surrender would mean two years or more of incessant fighting. If it be so, then God grant that the war may be pushed for two years, or five years, and every father and mother in America whose son is on the battlefield will utter the same prayer.**

We are sure that the last paragraph of Mr. Lawrence's letter is entirely incorrect. The Allied people are determined to carry this war to the limit of punishment of Germany. Every effort to create the impression that a continuation of the war to the crushing of Germanism must be prevented in order to save losses, and because the Allies are not willing to make such sacrifices, is wholly contrary to the facts.

The influence of this letter tends to lessen the morale of America and to bring about a condition which might make some elements of American life willing to accept peace on any terms, for there are still many people in America who believe in peace at any price, and people who are not "too proud to fight," but too cowardly to fight; and the cowards may perhaps make a greater noise by this pro-German activity than those who on the battlefield are dying in behalf of civilization.

In the light of what is now taking place it is not surprising that many serious-minded people are thinking like Bishop William A. Quayle of the Methodist Episcopal Church, who, writing from St. Louis to the MANUFACTURERS RECORD, says:

**"We need to be very much on our guard lest the Germans in America make the peace rather than the proper authorities on the field."**

#### A PROPHET TRUE.

IT is meet to recall at this time, when the Allied forces are pushing the Germans out of Belgium, Col. Henry Watterson's prophecy in the Louisville Courier-Journal of Thursday, October 15, 1914, two months and a half after the beginning of the great war, in which he said that the Kaiser and his agents awaited their Waterloo, and he used for the first time his now celebrated and forcible exclamation: "To hell with the Hohenzollerns and the Hapsburgs!" The editorial is as follows:

#### A TRANSPARENT EXPEDIENT.

The statement sent out by the German Government announcing the discovery in the archives of the Belgian General Staff at Brussels of documents which show that a plan for landing an English force in Belgium had been provided for long before the war, is obviously an invention. The statement is put forth to bolster the German contention that the Allies did not intend to respect Belgian neutrality; that Belgian neutrality practically did not exist, and that the Belgian Government was conspiring with the Allies against Germany. All these are lies out of the whole cloth, characteristic not only of the Militarist System and Method at Berlin, but of the pro-German propaganda in the United States.

Henceforward let him be called The Accursed Kaiser—Wilhelm the Damned—who, like the Devil and Bonaparte before him, will live immortal as the Father of Lies and Lying, his agents in the field and in the counsel of the same murderous and bloody kidney.

Let them enjoy whilst they may the riot of vandalism—the orgy of butchery—the dance of death, they have imposed upon Europe, but especially upon the little brave land of the Belgians even whose good name they would assassinate; but their doom is before them; they await their Waterloo; when the world will ring around the universe, "To hell with the Hohenzollerns and the Hapsburgs!"

As we consider these views in the illumination of more than four years of hostilities, with the United States now for a year and a half also engaged in the titanic struggle for world liberty, we must be struck by their clarity. They were expressed only 75 days after Austria started the ball rolling, but the old editorial war-horse, whose brain conceived them, understood with accuracy the real purpose of the German Government and its utter worthlessness as to morality. He saw also the lying propaganda here in our midst when only a very few others even surmised that there could be such a campaign of falsehood and crime as German agents pursued, and he denounced them with all the old-time vigor of his pen.

#### AN OMISSION.

**A**S War Information Series No. 20, the University of North Carolina has issued a syllabus for the War Issues Course of the University on the Historical and Economic Background of the War. The course for the Students' Army Training Corps at the University calls for a minimum of twenty lectures. In the outline the selections were made, it is stated, "to the end that the student should be directed to information and interpretation on which to found a body of enlightened opinion about the fundamental causes and the most important issues of the present war."

A somewhat wide list of reference and suggested readings is offered in connection with the syllabus. To further broaden "information and interpretation" on which to base an "enlightened opinion about the fundamental causes and the most important issues of the war," it might be suggested that many of the war pamphlets and special articles of the MANUFACTURERS RECORD extending back to the very outbreak of the war might with advantage have been included in the list of suggested readings, but not one of them is mentioned by a university which is supposed to stand for Southern progress.

#### IS CHANGE OF MIND COMING?

**W**HAT Germany refers to when it says that it will not accept a "humiliating peace" is that it won't pay the bill. It will change its mind before the Yankees get through with it."—The Rochester Herald.

Not if many people in this country can have their way, for they are determined that Germany shall not be humiliated nor made to surrender, and that plan has some very strong backing.

## SHALL WE DUPLICATE IN AMERICA THE WORLD MENACE OF THE EDUCATIONAL SYSTEM OF GERMANY?

IN a recent issue discussing the educational system of Germany, the MANUFACTURERS RECORD quoted Rev. W. J. McGlothlin, a professor of history, and a graduate of the University of Berlin, as saying:

**"The German school system is, in my opinion, the greatest single menace in the wide world today. It is impossible to see how the German mind can be changed as long as the school system remains what it is."**

In further elaboration of the subject Dr. McGlothlin said:

**"Here is the point where the world's peace has been wrecked, and it would seem almost impossible to build it up until the German mind is changed. The German schools have succeeded in making the most egoistic, provincial, truculent and ruthless mind that the modern world has to show. Glorification of the State has become an obsession, a cult, a religion. The highest pretensions and the most loathsome actions of the Government have been justified, and even glorified in lecture-room and pulpit throughout the land. The world is face to face with the frightful fact that in Germany there are 80,000,000 of people whose minds are constantly formed by a school system that monopolizes education and is absolutely under the control of the ruthless ruling classes. Mankind faces no more sinister and menacing fact than this as it looks into the future. How can the world be safe for democracy or anything else as long as the German educational system remains what it is now?"**

We have seen in the complete destruction of the moral fiber of the German nation the outcome of the German school system—a system absolutely dominated by the Government and whose teachers must teach the things for which the Government stands. Notwithstanding this experience, Senator Smith of Georgia has introduced a bill for the creation of a Department of Education by the National Government with an appropriation of \$100,000,000 annually for the purpose of developing the educational system of America. It is proposed in this bill that this Department of Education shall work in co-operation with the States and that allotments of funds shall be made to the States.

It is needless to say that if such a bill should be passed we would have written into the law of the land the doom of this nation. Any system of education absolutely dominated from Washington, as this would be, could control every public school in the country, for officers and school teachers would inevitably look to Washington for instructions as to what to teach and how to teach it. Already the Commissioner of Education is a menace to the country. It is not alone that the present incumbent is wholly unfit for the job; not alone that Dr. Claxton is an aggressive fighter against the elimination of the German language from American schools, and that by virtue of his position he has a tremendous power over the educational thought of the country. The veriest humbug might occupy the office and yet his power be great by reason of the office. We have in the incumbency of Dr. Claxton proof of the fact that men wholly unfitted for such a great responsibility may hold that office.

Imagine for one moment what would be the condition with a Department of Education with \$100,000,000 annually at its command in shaping the entire educational life of the country. We would soon have a national system of education which would inevitably, despite all the protests that may be made to the contrary, lead to the domination of education by the Government, matching that of the German Government of the entire educational system of Germany; and through the influence of such an organization broad, wise education would cease to exist, and we would have only that education which was formulated from Washington.

It matters not what party might be in power; it matters not how good and great might be some one man temporarily at the head of this organization, the ultimate outcome would be disaster. The monopolistic absorption of education by the national

Government would be disastrous to diversity of thought and of education.

No appeal for more general education, no appeal for particular interests or a particular line of education, no statement as to the lack of educational facilities at this place or that place, should for one moment have any effect in causing the country to look with favor upon such a bill. The school system of Germany has wrecked that nation in its morality, in honesty and integrity, and as a result of the school system we have had the great world war with all of its horrors, for had the German Government not controlled the schools of Germany, we do not believe it would have been possible to so completely dominate the mind of the people as to have caused the entire nation to sell its soul to the devil.

America should beware of following Germany's example, and Senator Smith's bill should never again see the light of day.

### "GOD AND THE GREAT WAR."

**W**RITING to the MANUFACTURERS RECORD, Mr. L. E. Morgan, a business man of Dothan, Ala., sends a copy of an article written by him for the Christian Observer, entitled "God and the Great War." In his letter Mr. Morgan says: "I suppose there are a great many people who might not agree with me. I have been trying for four years to get the German viewpoint, or, rather, to understand what I might call the German phenomena. I was to a certain extent familiar with German history, and I sought at first for an explanation along the lines of ancestral training and heredity combined with commercialism. Then, alternately, I sought for an explanation on the grounds of the pathological and metaphysical, passing by, of course, such things as patriotism, loyalty, racial problems, etc., as these were obviously second causes.

"Finally, however, the conduct of the Germans was so unusual, so inhuman and totally unlike anything human I had to hunt elsewhere for an explanation that would satisfy my mind, and I cannot find it anywhere except that it is the result of actual demoniacal possession."

In the course of his article in the Christian Observer, in elaborating this point and in taking the ground that this is a great fight between spiritual forces, between the power of right and the power of evil, Mr. Morgan says:

"In connection with the national day of prayer recently observed in the United States, I noticed a cartoon on the front page of one of our great dailies, showing Uncle Sam on his knees, with clasped hands, in prayer. 'This is as it should be. A nation so obviously born in the Providence of God, and so plainly guided and directed by Him during its entire subsequent history, should, in its greatest hour of national peril, turn to Him for help and succor. At last we are putting first things first. Carried away with the ardor of preparations and preparedness, we have adopted various national slogans, such as 'Food Will Win the War,' 'Ships Will Win the War,' 'Aeroplanes Will Win the War,' etc., until at last we are beginning to realize that there is something of far greater importance than ships, aeroplanes, food, munitions and men, important and necessary as these are, and that our national slogan should be 'Trust in God Will Win the War.'

"As we study human history we readily see how many of the important battles of history-making wars have been decided by providential events, usually weather conditions. It was so in the battle of Crecy, and also of Hastings, and also in the deciding battle between Gustavus and Wallenstein, which saved Europe to Protestantism. A terrific storm destroyed the great Armada and saved England. Two heavy rains just at a critical moment saved General Greene from Cornwallis, and but for this the American Revolution would probably have failed. A heavy rain the night before Waterloo prevented Napoleon from moving his artillery until too late the next morning, and in more recent history it is a well-known fact that weather conditions were a potent factor in the battle of the Marne and success of the Allies. We can thus see God intervening in human affairs at critical periods, using the forces of nature as influencing and deciding factors—a thick mist, a heavy fog, storms, rains and mud—these things have repeatedly changed and shaped human history. 'God is on the side of the heaviest artillery,' said the Corsican, but only a short time after God's little snow flakes, beating down upon him and his doomed battalions, sent him down to failure and defeat.

"Important as is the need of material preparation, it is of infinitely greater importance that our nation realize the true significance of this world war—that it is no ordinary war and we search human history in vain for a precedent. A great nation has apostatized and lapsed into barbarism—a barbarism so cruel, so ruthless, so dehumanized, accompanied by such strange

and startling phenomena, that we can no longer attribute it to peculiar hallucinations working out along metaphysical and pathological lines, but rather to something far more dreadful and appalling—demoniacal possession. This, and this alone, can explain the cruelty, inhumanity and fiendish conduct of the Germans during the past four years.

"Today Satan seems to be manifesting his power and actual presence as never before in human history. We know that during the past four years Germany has been repeatedly saved from defeat through the work of the German electro-chemists, and we have given the German electro-chemists credit for this. But has it occurred to us that there was a far greater intelligence at work for them than these chemists? We have seen the German General Staff meet crisis after crisis successfully with military action of marvelous and paralyzing ingenuity, but has it occurred to us that behind the figures of Hindenburg and Ludendorff has been silhouetted the dark and sinister figure of another and far greater military genius—the dread personality of the Prince of Evil? This view will explain much that has heretofore seemed strange and inexplicable.

"We can thus understand that the present world conflict is really one between unseen spiritual forces, and to meet such a strange and unprecedented situation, what will avail our material preparations unless with these goes trust and dependence upon God? The battle raging in Europe is but the reflection of the one of far greater magnitude which we cannot see, and the final result here will be decided, not by men, munitions and money, but by the intervention of Almighty God. In this connection it is encouraging to see how so many of the great naval and military leaders of Great Britain and America are calling attention to this.

"A great nation, fallen to the uttermost depths of degradation, infamy, and fiendish in its devil-possessed fury, is being personally guided and directed by Satan, and this is the antagonist we have confronting us today. Are we, apart from God, equal to such a conflict? Consider: such a being, unless restrained by God, could place weapons in the hands of his willing slaves that would end the war in their favor, almost instantly. This may seem to some fanciful, but as sure as we live the veil is being withdrawn and the devil is in charge of the German nation today, and there is something in their entire line of action that reveals satanic possession. The ultimate result of this conflict, however, cannot be in doubt, because God reigns.

"This we know. This is His world, and He has neither surrendered His authority nor abrogated His Throne. If we today could see as Isaiah saw, we would see a 'Throne high and lifted up,' and neither earth nor hell can shake that Throne. All the events of this war are under His full and absolute control, and neither Satan nor his emissaries can break through that control. What the American people should do now is to call upon God as never before, asking His blessing upon the efforts we are making. The day of prayer should become the habitual attitude of mind and heart on the part of our people, and in thus coming to God, humiliation and confession of sin should occupy a large place in our prayers, because we, as a people, have been guilty of very many great sins. Sins of avarice, intemperance, immorality, graft, materialism, Sabbath desecration, profanity, which things we should abandon, repent of and seek forgiveness for.

"All 'win-the-war' methods will be vain without Him. We should have a definite, concerted and organized plan for awakening our people as to this, until it will be the masthead of every newspaper, on the letterheads of every business man, and in the minds and hearts of all our military leaders. Surely it is necessary, because in a very real sense we are wrestling, not only against flesh and blood, but against 'principalities, against powers, against the world rulers of this darkness,' and as along with the whole-hearted military preparations we are making, we humble ourselves in contrite and trustful prayer before Him, we can beseech Him to release these supernatural forces which can speedily bring victory."

### "GONE WEST."

**G**ONE West! Over the purple hills and beyond the softly glowing rim of life's day the warrior's spirit takes its flight! Out of the morning, across the white archway of noon-tide, down to the sunset! Out of the din and clamor, out of the bitterness and strife, out of the fierce passion of the combat, into the dreamless silence whose shadows mark the pathway to the stars! Beyond earth's darkening horizon, through the curtained gloom of night, far upon the shoreless sea of fadeless light! Out of the agony of life's Gethsemane, over the quaking summit of Calvary, into the realm of glory, where God's banners never furl, where victory is sure! So the stainless knight of a stainless cause moves down the western earth's last glimmer fades and dies, and into God's spreading dawn, whose light is eternal, whose breath is cool and sweet. "Gone West!"—The Houston Post.

What a superb tribute to the "saviors of civilization" as they offer their lives upon the cross which stretches over a thousand miles of battle line in Europe that others may be saved from eternal damnation under German domination.

"Well done, thou good and faithful servant; enter thou into the joy of thy Lord."

## SOME WONDERFUL MESSAGES TO AMERICA IN THIS ISSUE.

THERE are two or three remarkable articles in this week's issue. They are of outstanding importance. One is a letter from Dr. Virgin, a Baptist minister now working in the Y. M. C. A. in France, a man of the highest standing, and a man of consecrated life. He tells of some of the atrocities which have come under his own eyesight, and he calls in clarion tones to the nation for adequate punishment of Germany.

Another letter, similar in tone and equally as vigorous, is from Rev. Dr. Bennett, an Episcopal minister of Memphis. Dr. Bennett's presentation is of commanding power. These letters should be read side by side by the people of the whole country. Then, what shall be said of that marvelous call to the motherhood of America in the letter by Mrs. Starr, which appears on our cover-page? Who can read it without finding his eyes filling with tears? Who can read it without a quickening of his heart as deep down into his soul comes a realizing sense of the voice of motherhood? It is a wonderful message. It comes with tremendous power at this crucial moment.

We trust that our readers will take these articles and spread them broadcast, get their local papers to republish them, or reprint them in any form desired, and thus give the utmost co-operation to the moral forces and to the motherhood of this nation in arousing the country to the supreme need of demanding "Unconditional Surrender" on the part of Germany.

Let the cry of Mrs. Starr, who speaks not only for her four sons in the service, but for all of the motherhood of America as she says, "On to Berlin," be the cry of the motherhood and the fatherhood of America. That is the message which should go into every home in this country. It is a message from motherhood to motherhood.

The letters from Dr. Virgin and Dr. Bennett and others published in connection therewith are of tremendous importance in showing why the demand of Mrs. Starr, that the soldiers shall not be stopped this side of Berlin, should be granted. These ministers point out with exceeding clearness that peace without punishment would be a crime against humanity, and there is no punishment which can be inflicted upon Germany adequate to the situation unless the armies of America and our Allies march straight through Germany to Berlin and Vienna, and then let the people of Germany know that they have indeed been conquered. If this be not done we shall prove false not only to those who sleep "In Flanders' Fields," but false to all the ages to come.

If Germany be not invaded its people will never understand the reality of the war. They will never believe that they have been really overcome, and within a very short time German historians and German teachers would be writing into their histories and into their school books that America and the Allies made a compromise peace rather than to undertake an invasion of Germany. It would be but a brief while before all Germany believed that America and the Allies had, in effect, been defeated, and before this generation had passed away Germany would be asserting, through its schools and universities, that Germany had conquered America and the Allies, and that Germany must prepare to conquer the world.

War to the finish is the only hope for world salvation from German damnation, and the time for this is now.

On to Berlin and Death to Germanism! must be the universal cry, regardless of every effort in Washington and of every pro-German in this and every other country, and of every German-controlled Socialist who seeks to bring about "peace without humiliation to Germany."

## GERMANY INSULTS PRESIDENT WILSON.

MAJ. H. C. EMERY, who has recently been released from Germany, in a dispatch cabled to American papers says:

"The German people have turned to President Wilson in the belief that he is the one great political leader who can be trusted to make a permanent peace which shall permit equal economic development. This public attitude came soon after the President's first note.

His second note came just before I left Germany. It did not cause the people to doubt the President's sincerity, but there were misgivings concerning his power to carry out his principles.

The people are in a state of humility. They are willing to withdraw from France and Belgium, to give up Alsace-Lorraine, to pay indemnity to Belgium and to admit that they have been wrong; but they wish to be sure that no Allied troops enter Germany. They frankly admit that they do not want their cities to suffer what they made the French cities suffer."

And so the nation of murderers and looters now look to President Wilson to protect them in securing "equal economic development," and they are even willing to pay something to Belgium, provided no Allied troops be allowed to enter the sacred country! The fact that Germany looks to President Wilson to secure them "equal economic development" and to keep Allied troops from entering Germany is an insult to him, which he should vigorously resent. Is it, indeed, true that this nation of murderers looks to President Wilson to save their country from invasion, and, if so, why?

Considerable mystery attaches to Mr. Emery's release from Germany, but it apparently comes just in time to let him send the "No-need-for-Germany-to-Surrender" telegram to the New York World, a telegram apparently designed to create a mawkish, neurotic sentiment for Germany. On this the New York Herald, under the heading "In Fear of Their Own Medicine," says:

"If evidence were lacking to show the need for that, it is furnished by the World. An article furnished that newspaper by a professional financier recently released from imprisonment in Germany is illuminating, even if the circumstances surrounding his incarceration and subsequent release remain a good deal of a mystery. There is something suspiciously coincidental in the writer's having been permitted to examine into Germany's internal situation and his being released just at this time to send to this country what purports to be the situation there as viewed by unnamed 'liberal leaders.' It is a tale of surface democratization. What most attracts in it is the writer's assertion that the German people are in a state of humility; that they are willing to make all sorts of concessions, including admission that they have done wrong, but they wish to be sure that no allied troops enter Germany. They frankly admit that they do not want their cities to suffer what they made the French cities suffer." And on that there is hung—attributed to so-called liberal leaders, to be sure—the contention that a growing German democracy should not be jeopardized by invasion of German territory!

"If the American people were at all concerned over the birth of a German democracy they would have mighty little faith in the stability of a democratic movement that, confessedly, has no other basis than fear. What red-blooded Americans will see in this admission is need for all the greater insistence upon their demand, which is confined to no one political party—*On to Berlin!*

"We have just begun to fight!"

## THE BATTLEFIELD MUST BE THE PEACE TABLE.

THE fraternal organizations of Washington county, Pennsylvania, are sending out, through Jas. P. Eagleton, director for that county, a poster headed "Fraternity." Brothers may this be our slogan: "Peace through Unconditional Surrender."

Under this heading there is an extract from the MANUFACTURERS RECORD against any peace with uncrushed, unrepentant Germany until Heaven offers peace with unrepentant Hell, and a striking statement from Will Irwin, the well-known writer, who outlines the case with absolute accuracy as to the only peace discussion that should take place. It is as follows:

"Let the peace table be the battlefield and the terms be pinned there by the bayonets of the Allies. If Germany wants peace let von Hindenburg present his sword, hilt first, to Marshal Ferdinand Foch. That will be a peace note which will amount to something and will save much paper and literary composition.

"In the West when the sheriff gets the local bad man in a corner, his hands over his head, it's good form to say, 'You stand there, pardner. I'll do the talking.'

"The Allies will know perfectly well how to frame a peace note when the time comes."

## LET THE PUBLIC HAVE THE FACTS, MR. PRESIDENT!

IN President Wilson's recent letter to Germany he said that he had "received the explicit promise from the present German Government that the humane rules of civilized warfare will be observed on land and sea by the German armed forces."

Nothing which has been published as coming from the German Government confirms that statement, and nothing done by the German army since then indicates that the German Government had the slightest intention of doing what President Wilson says it has explicitly promised.

President Wilson owes it to the country to make public any private assurance which he has received from the German Government such as that referred to in his statement. If he has any specific statement to that effect then its official publication at the present time would show that the German Government is still composed of bars who will not keep any promise they make, for atrocities still continue.

It is scarcely conceivable that President Wilson would have made that statement without having the facts on which to base it, but he has given the public no information on the subject. Justice to the people of this country and to the people of the world suggests the propriety of his giving to the public the facts on which he based the statement. This country cannot afford to be kept in ignorance. Mr. Wilson has vigorously criticized "secret diplomacy," but he has here made a statement about which the public has no information whatever, and the public has a right to ask him to give the exact facts in regard to the "explicit promise" he has received from the German Government that atrocities should be discontinued.

## HAVE YOU BY YOUR ACTS THUS SPOKEN TO THE SOLDIER?

COMMENTING upon the disposition of some people to withhold subscriptions to the Liberty loan or to buy only enough to be able to say that they have bought bonds when they are really able to buy to a much larger extent, the Evening Sun of Paducah, Ky., says that, laying aside diplomatic language, "every man who is guilty of a trick like that is guilty of murder."

The slacker in the purchase of Liberty bonds who seeks to hide behind an investment far less than his means justify is acting the part of a murderer—not one which the law may seek out and punish, but nevertheless he is guilty of "silent and invisible assassination."

Referring to such people, the Sun says:

"The higher appeal of patriotism and consecration to the salvation of a suffering world is probably wasted on that sort of being, but perhaps he can appreciate the simpler analogies.

"If the wife he loved was being assaulted he would protect her, we suppose.

"If the mother that bore him was being crucified, he would, we imagine, go to her assistance.

"If the children that he brought into the world were in the red hands of a murderer he would strike in their defense.

"If a vandal approached his home with firebrands, he would at least try to knock him down.

"The wives, the mothers, the children of all civilization are in the grasp of the beast today, and there stands between his bloody paw and the dear ones of America but one thing—that glorious line of soldiers, who from the Belgian coast to the frontier of Switzerland are protecting the world from the lust of the Hun.

"Men are twisting in agony on the ground that the foul talons of the Kaiserbund may never reach the white throat of American womanhood, that American life and property may be protected from the murderer and despoiler.

"Men are enduring worse than Hell that the red terror may never reach these shores.

"And the slacker, who, here at home, keeps in his pocket the money this country has made it possible for him to possess, openly confesses that he is WILLING—yes and GLAD—that other men shall lay down their lives in defense of HIM and of HIS loved ones—AND HE WILL NOT LIFT A FINGER TO HELP.

"The comparison is not overdone. There is nothing illogical in the accusation. There is no other conclusion to be drawn. To be thoroughly consistent the bond slacker needs only to say to every soldier who sails from these shores: 'GET KILLED—DAMN YOU—YOU'LL GET NO HELP FROM ME.'

These are bitter, burning words, but they are none too strong.

## TO THE MOTHERS OF OUR SOLDIERS.

Sad and weary mothers, women past your prime, Plants whose bloom is withered, touched with silver rime, Who have seen your little sons grow to stalwart men, And can never hold a baby in your arms again— How shall you be comforted when they say goodbye, All of them to suffer and some of them to die? Once there was a mother of a son that died: Blessed among women though she saw him crucified. Hers had been the sorrow, His the shameful death, But He stayed at home with Her in quiet Nazareth. —New York Sun.

## OBSOLETE.

**B**E Neutral in Thought.  
Too Proud to Fight.  
Peace Without Victory.  
Politics Adjourned Until After the War.

These are now recognized as all "scrap-heaped," but they prove that President Wilson could make tremendous mistakes. We venture to predict that of all his mistakes which he will most deeply regret of is his fearful blunder of insulting the patriotism of one-half the country.

No patriot, no lover of mankind, could do other than mourn that the President of the United States should thus step down from his high estate—but every pro-German in America will hurrah for this blunder and will vote as he suggests. Mr. Wilson, the nation did not believe it of you!

## ON TO BERLIN!

## WAR AS SEEN BY SOLDIERS AND THEIR VIEWS AS TO AN UNPUNISHED GERMANY.

**A**S a general thing soldiers are not allowed to express their opinions on war questions because of military discipline, and, therefore, while we, as a rule, avoid publishing anonymous communications, we have two, one from an officer in America and one from a soldier in France, expressing their views on this situation which deserve to be made exceptions.

Judge Walter F. McCoy of the Supreme Court of the District of Columbia, in a letter to the MANUFACTURERS RECORD, says:

"I am in receipt of a letter from an officer in one of the big camps, which reads in part as follows:

"I admit I am a rabid anti-peace advocate. I am of the opinion that the Hun is jockeying for any sort of ending to save their generals and high command from an overwhelming defeat and utter annihilation. To this end I pledge my all and would gladly lay down my life. These are the sentiments of nearly every officer of my command."

Another letter comes to us from the vice-president of one of the greatest manufacturing enterprises in America containing a letter from one of his German acquaintances who was intensely pro-German at the beginning of the war, but who enlisted in the 7th Regiment of New York and is now in France. He was born in Germany of German parents and was intensely pro-German from infancy. He is a friend of the vice-president to whom we have referred, and the name cannot be given because to divulge his name would be embarrassing to his mother. He is now brought face to face with the conditions as seen on the battlefield, and here is an extract from a letter dated September 27 to his mother in New York:

**Extract from letter dated September 27 from a former pro-German, now in France, to his mother in New York:**

"I do hope, mother, dear, that you have no more sympathy left for any part of Germany or Germans. I appreciate the position you are in, but I've learned to hate them with all my heart. You who have not seen what I have seen (especially in the last few days) cannot understand what low cowardly hounds the military men of Germany are, with exceptions, of course. This is some of their military work: the English, in picking up dead bodies of German soldiers, to give them a decent burial, were often blown to pieces, as the body had been wired to some high explosive, and as soon as it was moved it exploded. I could write hundreds of other reasons why a white man should hate them, but it's all too rotten to write about. If they were only brave soldiers on the field of battle one might overlook things, but, as soon as they see that they are losing, up go their hands and they surrender."

"I have to laugh when I think of what Henry once said, something to the effect that when the know-nothing American soldiers ran up against some big Prussian guards, what an awful joke it would be! Well, it was, and the Yanks haven't stopped laughing yet."

And yet some people in this country have been seeking to create the impression that the German people are different from the German Government!

## HOW GERMANY IS PREPARING FOR AFTER-WAR SHIPPING AND TRADE.

**T**HE Liverpool Journal of Commerce recently published an article from the Vorwaerts of Berlin in which the latter discussed the prospective activity in shipbuilding operations in Germany after the war. What the Berlin papers said on this subject only indicates the spirit which prevails in Germany looking to great industrial activity when the war is over, and for which Germany has been planning during the last two or three years while vigorously carrying on its accused war. Vorwaerts looks forward to a period of great shipbuilding activity, and in the course of a discussion of the whole subject says:

"In strong contrast is the position of the shipbuilding industry, which is sure of a five or six years' boom after peace is declared, in addition to the throng for war orders, which at present keep all yards working day and night. There is little competition either for current naval orders or for post bellum merchant ship construction. Yards that before the war paid no dividends at all, or at most 1 per cent., are now writing off huge sums, and distributing in addition dividends as high as 20 per cent.

"By the side of the 22 old yards 14 new ones have sprung up and a further six or seven are planned. Of these last the most important are the Deutsche Werft A.-G., the Imperial Motorenwerke A.-G., the Neue Trietenwerke, and a giant new shipbuilding company connected with a large Rhenish steel plant and machine works, and controlled by Rickmers interests. The Deutsche Werft A.-G. is to have a capital of £500,000 supplied by the Hamburg-Amerika Line, the A. E. G., and the Gutehoffnungshutte A.-G., of Oberhausen, a Haniel concern.

"The city of Hamburg has leased to the company, for a period of 75 years, land for the erection of yards on the Elbe Island of Fierkenwarden. The company will devote special attention to the building of ships driven by crude oil motors. The Imperator works, for the building of marine motors, are also a creation of the H. A. L. and the A. E. G., this time in collaboration with Stinnes interests. The Triton works, at Luebeck, with a temporary capital of £50,000, have already purchased land from the city for the erection of yards and auxiliary buildings. The Rickmers Company will have its headquarters outside Hamburg, and will begin operations with the building of 12 fast ore-carrying steamers. The affiliated steel and machine factories will supply all requisite plates and machinery."

We may rest assured that Germany will promptly come to the front immediately after the war is over with all the energy of its people toward the building up of a foreign commerce and the unloading on America and other countries of its "made in hell" products, at a price based on low rates of wages in Germany, which would destroy many industries in this country if we should be so bereft of all reason as to permit these importations of "Made in Germany" or "Made in Hell" products.

We cannot afford to permit Germany to flood this market with its products, for Germany will be just as ruthless in trying to destroy the industries of America as it was ruthless in destroying women and cathedrals. Germany halts at no crime in commerce and industry, or in war. It counts upon commerce for the upbuilding of its wealth to regain its war losses. A nation of liars and hypocrites and looters, it is still unconquered, and we shall have to meet the competition of men who know not honor and know not truth, unless we safeguard our country from the importations of "German made," or rather "Hell made" stuff.

An English firm in pointing out why English houses should be preparing to meet after-war conditions says:

"In the year before the war Germany sold goods to the value of £167,000,000 to the British Empire.

"A large part of that money was used to purchase war material with which to wage a war of destruction against the British Empire—and against British trade. Now is the time to complete plans for diverting Germany's pre-war trade with the British markets into British channels.

"This is a war which has for one of its main German objects the defeat of British trade in the overseas dominions, and to secure that end Germany has accumulated vast stocks of goods which she will throw on the world's markets immediately peace is declared.

"As soon as this war is over the trade war will begin—a bitter struggle for commercial supremacy, in which it will be the German aim to strike first and hard, to secure such a firm footing in overseas territory that a supreme effort will be necessary to dislodge her.

"Never for a minute, either in advance or retreat, does Germany lose sight of the after-the-war trade

problems. Even in defeat her destruction of French towns is deliberate and designed for economic ends. She seeks to disable industrial competition, and so, as she goes back to the Rhine, she steals from the French industrial centres valuable machinery, furniture, metals and raw material.

"There is a great deal more method in Germany's systematic schemes of destruction than is suspected in some high quarters. It is the German aim to weaken the Allies economically—to strengthen her own forces for the big trade war which she knows is coming.

"Germany is calculating on finding us as lethargic as slow of movement, as unprepared as we were in 1914. To completely upset her calculations we must organize for industrial victory now—must formulate our plans to secure Empire trade now—must act with vigor, determination and common sense—now."

It is even more important for America to prepare against this flood of German goods than it is for England. We must strengthen and safeguard our economic forces and make certain that we shall never again let Germany dominate our markets.

## SHALL CIVILIZATION BE SAVED?

**O**CTOBER must witness a general German retirement, and then comes the most dangerous time for the world, the German struggle for peace."

That statement was written in September last in Switzerland by Mr. C. W. Barron of the Wall Street Journal, who has been in Europe for some time making a study of conditions over there. It was published in the MANUFACTURERS RECORD last week in connection with other statements made by Mr. Barron, all of which deserve a rereading and a re-emphasizing in order that we may rightly grasp what is taking place in Europe.

The things that Mr. Barron predicted in September have come true. The German armies are retreating as he said they would do in October, and the great fight of Germany to secure peace without punishment is under way in October, just as he said it would be. Today it is literally true that with October and with these peace moves "has come the most dangerous time for the world, the German struggle for peace."

It is impossible to exaggerate the danger of the hour. Never was there an hour in human history when greater care was needed in order to make certain that criminals would be punished and that the civilization of the future would be saved.

## GERMANY'S WAR BONDS.

**A** DISPATCH from Switzerland says that the Germans are trying to unload their war bonds and that there is some question among Germans as to the Ninth German War Loan "being a safe investment."

We think it quite probable that they heard in Germany sometime ago the suggestion first made by the MANUFACTURERS RECORD that all war bonds issued by Germany and its allies should be confiscated and applied as a partial payment toward the indemnity which America and our Allies should place upon Germany, or that if this be not done, Germany be forced to repudiate all its war bonds in order to meet the indemnity to the Allies. In other words, no German who has invested in these bonds, whether he be banker or peasant, should ever be permitted to collect one dollar of them.

These bonds were gleefully and joyously taken by the people, who felt that they were out on a great marauding expedition for looting the world, and they joyously bought the bonds which enabled their murderous representatives to go out on a campaign of killing. The only way to reach these people is by financial punishment. While the leaders should be hung, the people at large cannot thus be treated; but if they can be deprived of every dollar of bonds which they took for the purpose of carrying on the war, all classes, from the great banker to the peasant, will have to bear a fair share of the burden, and thus will learn something of the meaning of war.

It is not surprising, therefore, that as the knowledge seeps into Germany that these bonds will be of no value to German holders of them that they are eager to get rid of them, but nobody wants to buy them at any price.

## RUSSIA UNDER GERMAN DOMINATION.

GERMANY is hoping to retain its hold on Russia and to exploit that great country, which has more than one-sixth of the land area of the world and a population of nearly 200,000,000. If Germany can keep its hold on Russia it could well afford to withdraw from Belgium and France and to pay billions of dollars in indemnities and still win a great victory by dominating Russia. Once freed from the menace of the invasion of its own country and the destruction of its military power, Germany could pay practically any price for peace, provided it can dominate in Russia. There is no safety for the world except in the destruction of Germanism. While the newspapers do not give much information in regard to the treaties made between Germany and Russia, the *Cologne Gazette* was recently quoted by the *London Times* as throwing some light on the subject. The facts should be studied in America. The *Times* said:

"Nor are the newspapers allowed to explain the economic concessions, which are incidentally mentioned in the treaties, but are not disclosed. It appears, however, from the financial columns of the *Cologne Gazette* that Germany has forced upon Russia one of her favorite schemes—the organization of Russo-German 'Society for Foreign Trade.' Nominally, Russia is similarly to organize her foreign trade with every individual country, but in reality, of course, the scheme is a concentrated form of German economic penetration. The *Cologne Gazette* rejoices once more at the arrangement of a special Russian loan for German interests, and writes as follows:

"For Germany and Russia this is the first bond which will link together afresh their economic system when the obligations of the old Russian system have been wiped out. It is like a joke of world-history that the creditors of the Seine, who were once so closely linked up with Russia, have seen their Russian hopes disappear and their whole fabric collapse, while the German army gets his whole debt settled and new economic connections established. The gloom of the Paris Bourse is only equalled by the satisfaction with which the German markets welcomed the conclusion of the treaty and the announcement of the details. The new treaty between Germany and Russia confirms the repudiation of the Russian State debt. It is not impossible that compensation negotiations will some day have to take place between the former Allies. But then Russia can put into the account tens of millions for loss of life and property and so will not have to meet her debts."

## WATCH OUT!

BISHOP WM. A. QUAYLE of the Methodist Episcopal Church, writing from St. Louis to the MANUFACTURERS RECORD, referring to a letter recently published by him warning the country against "moral flabbiness" in dealing with the war, says:

"Events since the writing of the articles have justified the fear expressed and implied in it. We need to be very much on our guard lest the Germans in America make the peace rather than the proper authorities on the field."

Bishop Quayle is entirely correct. There is a tremendous danger that the Germans in America and pro-German interests in America will set the peace terms, or bring about conditions which will result in naming the peace terms finally adopted, unless this nation be on its guard.

## "YOURS FOR UNCONDITIONAL SURRENDER."

THE suggestion made in the MANUFACTURERS RECORD last week that every business letter sent from every business office in the country should be signed "Yours for 'Unconditional Surrender,'" has been improved upon by one of our readers in Atlanta who signs his letter "Yours for 'Unconditional Surrender' and adequate punishment." If, however, the latter is too long for the average business letter, we again remind our readers of the importance of putting on every letter

Yours for "Unconditional Surrender."

Let this message go into every home and into every business office in this country, reiterated day after day and in as many ways as possible, by line upon line and precept upon precept, that this

thought may be driven into the hearts of the people of this country.

Another subscriber now signs "Yours for Unconditional Surrender in Berlin."

## FROM BELGIAN'S HEROIC KING.

General Headquarters of the Belgian Army,  
22nd September, 1918.

Cabinet du Roi.

Dear Sir:

I am commanded by His Majesty to acknowledge receipt of your letter of 25th July last and to thank you for so kindly sending the interesting Portfolio of Editorials of the Manufacturers Record, which the King is most pleased to have.

I am,

Yours faithfully,

FR. DE JEHAY,

Chef du Cabinet du Roi a. i.

Richard H. Edmonds, Esq.,  
Editor and General Manager

Manufacturers Record,  
Baltimore, Md.

Etats Unis d'Amérique.

## SONG OF VICTORY.

Gone are the long, long nights of dread,

Gone are the days of weeping.

Awake, awake, ye mighty dead!

Wherefore are ye sleeping?

See, fading in the stormy West

The evil fires of warning!

And see!—the Eastern sky is bright

With promise of the morning!

Awake, press on, the hour is nigh,

And Victory your battle cry!

They died for this! Oh, never doubt,

For them the dawn is breaking!

At Victory's triumphant shout

The shattered earth is waking.

O living hearts, be worthy these

Strong hearts in silence sleeping,

And peace will bless the earth again.

And joy be born of weeping.

Look up! The long, long night is gone,

And Victory is leading on!

—ELIZABETH HONEYMAN.

## THE RIGHT SPIRIT.

**I**N their Liberty Bond advertisement in one of the New York papers, the Mitchell Vance Company, Inc., of that city, used as an advertisement an editorial from a cover-page of the MANUFACTURERS RECORD, and followed it with these statements:

The above editorial represents our attitude, and we believe that of every other true American manufacturer. We wish to assist in its circulation for two reasons:

First—It expresses the loathing we feel for that blood-tainted crew who are demolishing what has taken centuries of human enterprise to build up.

Second—Readers of The World will be stirred by this fearless exposure of facts in which truth appears, naked as the bayonet, and will dig deeper for the Fourth Liberty Loan, as we ourselves have done.

We are distributing this cast figure of "the Kaiser Hooked," a metal-worker's idea of what will happen to the devil's successor when the round-up comes.

This company, employers and employees, not already in the trenches, have mortgaged their earnings and savings for long after the period of the war and are working 14 hours a day to give the Government the service that is required.

Our motto is "Work and Fight and Lend." Talk will not win this war.

The "hooked" figure mentioned in one of these paragraphs is a metal figure of the Kaiser hanging by a rope from the gallows, where he rightly belongs. Following that is the statement that the Mitchell Company and its employees are working 14 hours a day in order to give the Government the service that is required in its great work of winning the war, and that the company and its employees are mortgaging their earnings and savings for a period long after the war, in order to meet demands for subscriptions to the Liberty Loan.

This is the spirit which must prevail throughout this country. Every man must recognize, if he is an honest patriot, that he must work many hours, and that he must contribute to the utmost extent of his ability to the winning of the war through subscriptions to Liberty Loans. Tens of thousands of people have done exactly what the Mitchell Vance people have done, and this spirit must prevail from one end of the country to the other until the final ending of this war and the settlement of the problems connected with it.

## WHAT IS THE MEANING?

"I think it is my memory of early times in Texas which keeps me from being as shocked as some people are at the dreadful slaughter of this war," he once remarked. "To a man who can remember when bad men killed for sport in open daylight in city streets, and desperadoes swarmed in bands and ruled whole tracts of country, the destruction of European lands is not so startling, after all."—(The Real Colonel House, an Intimate Biography, by Arthur D. Howden Smith, Page 24).

"Colonel House is so relied on here (Berlin) that he would be doubly welcome as the bird with the olive branch."—("Face to Face With Kaiserism," by James W. Gerard, late Ambassador to Germany, pages 95-96.)

And this is the man who represents President Wilson at the peace conference!

## SHALL WE BE INDEPENDENT OF GERMANY'S POTASH?

Lynchburg, Va., October 23, 1918.

Editor Manufacturers Record:

I have read with considerable interest the various articles in your excellent paper on the potash industry. One of these papers deals with the probable interest of pro-German element endeavoring to discourage the by-product potash industry in this country.

It occurs to me that this is an opportune time for this country to be considering indemnities. Following out our program of insisting that Germany rebuild shattered Belgium and French cities and factories, German gold will be scarce. As a very small part of America's indemnity, why not stipulate that Germany must furnish this country a million tons or more of standard potash?

W. W. TAYLOR,  
Mining and Chemical Engineer.

We do not believe that this country should depend upon Germany for potash, whether purchased of Germany or whether paid as an indemnity. We believe that the United States should make itself absolutely independent of Germany by creating a potash industry in this country, which we are entirely able to do, with proper co-operation of the Government.

## NO HUMAN TONGUE CAN EVER TELL THE STORY.

**A** DISPATCH from London gives some statements in regard to the financial losses which have been placed upon Belgium by Germany's invasion of that country. Summed up by a Belgium authority, the figures are as follows:

Local contributions and fines levied by Germany on Belgium in 1914, £8,000,000.

War contributions from November, 1914, to October, 1916, £38,400,000.

War contributions, seven months to May, 1917, £14,000,000.

War contributions from May, 1917, to May, 1918, £28,000,000.

War contributions from June to October of the current year, £15,000,000.

Raw materials and machinery taken by the Germans were reckoned by them in January, 1915, at £80,000,000. The damage to December, 1914, estimated by the North German Gazette, amounted to £200,000,000. This makes a grand total of £384,200,000 (\$1,921,000,000).

These items do not include material destruction and requisitions since January, 1915, which alone must be reckoned at several hundred million pounds.

During the winter of 1916 Belgian workingmen to the number of 1,750,000 were deported to Germany. The future production of these men was thus totally lost to their country.

The aggregate runs into billions of dollars, but all the billions that Germany can ever pay will never atone for the suffering and the agony of the people of Belgium. No words that have ever been invented, no speech ever known to human tongue, can begin to tell the story of what Belgium and France have endured.

And shall the nation of criminals who, out on a murdering, looting expedition, has thus brought voiceless woe and sorrow beyond all that the world had ever known upon Belgium and France and other countries be permitted to go free of punishment or to have a peace without humiliation? May God forbid!

## Start "Unconditional Surrender Club" in Your Town

ACT AT ONCE AND BRING TO BEAR UPON THIS GREAT HOUR IN HUMAN HISTORY THE POWER OF MILLIONS COMMITTED TO "UNCONDITIONAL SURRENDER."

The way to start a club is given in the following plan authorized by the original club:

The recommendations of the local commercial organizations, the Rotary Club, Kiwanis Club, the daily newspapers or any group of representative citizens will be acceptable to the National Board for the appointment of a Unit Chairman. He should, however, be a man of unquestioned loyalty to his country, a citizen of high standing who holds the respect of the people of the community in which he lives.

To the Unit Chairman should be left the appointment of a secretary and a treasurer, which completes the local organization required by the constitution, though it is advisable to select an executive committee or advisory board, composed of the leaders in the community's activities, and the principal function of this body, in addition to furthering the work of securing members for the club, should be to combat all pro-German propaganda.

When the organization is completed application should be made immediately to the National Headquarters for a charter.

As there are no dues or fees connected with membership in the club, the Unit's activities may be financed through the sale of buttons bearing the insignia of the club, which may be purchased through the National Headquarters at \$20 per thousand (or less in larger quantities), and which shall be sold only to members at a cost not to exceed five cents each.

Membership pledge cards may be ordered from a local printer or they may be purchased through the National Headquarters at three dollars per thousand, plus express charges, with the address of the local headquarters or secretary printed on the opposite side, convenient for mailing and filing.

The pledge also may be published in coupon form by the local newspapers, the co-operation of which is highly desirable in promoting the expansion of the club.

Weekly reports should be made by the Unit Secretary to the National Secretary, giving tabulated lists of new members on forms supplied by the National Headquarters.

THE UNCONDITIONAL SURRENDER CLUB  
of the United States of America.  
National Headquarters, Flint, Mich.

DWIGHT T. STONE, MYLES F. BRADLEY,  
National President. National Secretary.

### PLEDGE OF MEMBERSHIP IN THE UNCONDITIONAL SURRENDER CLUB.

A National Organization Founded in Flint, Mich., July 27, 1918.

As a member of the UNCONDITIONAL SURRENDER Club of the United States of America,

I pledge my undying fealty to the United States Government;

I pledge my unfailing support to our soldier boys who are fighting the common enemy;

I pledge myself and all that I possess to the cause of winning the war against Germany and her allies if that be necessary;

I pledge myself to make any and whatever sacrifices I may be called upon to make, to the end that the Central Powers may be brought to realize that only an

### UNCONDITIONAL SURRENDER

will be acceptable to me and to my country, the United States of America.

(Signed) \_\_\_\_\_

Address \_\_\_\_\_

Date \_\_\_\_\_ Adult ( ) Minor ( )

There are no dues, no initiation fees, no duties except good citizenship and loyalty and patriotism.

Sign this pledge and forward it to National Headquarters U. S. Club, Flint, Mich.

### WE WANT NO GERMAN POTASH.

M. R. S. H. GAITSKILL of McIntosh, Fla., in a letter to the MANUFACTURERS RECORD, referring to the question of the possibility of German potash invading American markets, says:

"With reference to your articles on potash, if the Seamen's League stands firm, how will German potash get out of Germany? They have marked already a number of years that no seaman will help sail a ship to or from Germany. I hope and believe the seamen mean all they say, and that will be some punishment for crimes committed, even if peace terms are not what they should be, and we hope for an unconditional surrender verdict."

Even if no British seaman ever sails a ship on which German potash is carried, there are many other ships of other countries whose seamen might not be so ambitious. Moreover, Germany has great many ships in its own ports and is building others ready to enter upon the world trade the moment peace is declared. If we do not forbid the importation of German products, this country will be flooded, for Germany will do its utmost to break down in America every effort to create any industry to compete with things which Germany formerly shipped to us, and we have millions of people in this country who would rejoice in the privilege of buying German stuff.

### WASTE OF PAPER BY GOVERNMENT.

CONSERVATION of paper is greatly to be desired. It is being vigorously enforced upon newspapers, but it is being utterly disregarded by the Government. There is a fearful waste of paper by the various Departments and Bureaus at Washington, which seem to be vying with each other to see which one can send out the largest amount of stuff. Within the last 12 months these Departments have issued a number of new publications, some weekly, some monthly, and they are constantly sending out a vast mass of stuff, nine-tenths of which, we believe, goes promptly into the waste-basket of every newspaper office where it is received. It would be very interesting if the War Industries Board, which is cutting down the use of paper by the press, would make a study of the amount of paper that is being used by the various Departments at Washington as compared with the amount used a few years ago. War conditions, of course, have necessarily brought about a larger demand for information from Washington and some increase would be justified, but much of the stuff that is sent out is worthless and is duplicated and reduplicated until it overloads the desk of practically every editor in America.

### APPRECIATED COMMENDATION.

FROM D. J. Henderson, Jr., president of the Citizens' Bank of Ocilla, Ga., we have a letter in which Mr. Henderson voluntarily sends us a check for two years' subscription from October 5, 1918, to October 5, 1920, and in connection therewith he writes as follows:

"I am enclosing herewith my check for \$13 to cover subscription for two years, from October 5, 1918, to October 5, 1920.

"Your paper comes nearer expressing my views toward the European war and German militarism than any I read. Keep up the good work. I would do without the paper if your subscription prices were double what they are."

It is needless to say that every message such as this gives heart to the work we are trying to do, and shows that we are laboring not in vain in the effort to awaken our nation to the real meaning of the European war and to the struggle which is ahead of us, before civilization has been made safe and our own country has been saved from the fearful power of German barbarism.

Mr. J. T. Slatter, secretary and traffic manager of the Columbia Chamber of Commerce, Columbia, S. C., writes:

"We have never signed a check which gave us quite so much satisfaction as this one. For by it we are enabled to express in a limited way our entire approval of all you have said about this war and Germany's infamy. We feel that the sentiments, words and conclusions of your editorials have done more good in awakening and stirring to activity the apathetic American than those of any other journal published. We endorse every word you have printed about the terms of peace."

# WHO IS COLONEL HOUSE AND WHAT ARE HIS VIEWS?

[With the tremendous issues at stake it becomes vital to all civilization that our people shall understand as far as may be possible the men who are to sway the destinies of the world within the next few months. Colonel House, the sphinx, the enigma of America, is now in Europe, reported as officially appointed representative of America. Who is he and what has he done to be given such stupendous powers? The following article is an attempt to throw some light upon the subject.—Editor Manufacturers Record.]

By ALBERT PHENIS.

Washington, D. C., October 29.

Colonel House is in Europe again, this time with credentials as "special representative of the United States Government to the European Governments," dispatches from Paris state. This suggests some interesting questions as to what Colonel House has been empowered to do and whether it is intended that he shall continue to represent the United States, including all matters relating to ultimate peace with Germany, and if so, what, in the light of Colonel House's views, his character and his influence with the Administration, will be the peace terms which are likely to be advanced by him as the terms this Government demands.

What peace terms with Germany will this Government hold out for to the last ditch?

What may we be sure that the official voice of America will demand when finally it comes to the nations to determine the fate of the German rulers and the German people?

Will we stand immovably for punishment according to the criminal code and for reparation and restitution to the utmost limit of physical possibility under the laws of equity and morals, or will we in that most momentous day in profane history be found pleading for a "healing peace" with Germany, a peace "without humiliation" to Germany?

The position we shall take is a question to which not only all Americans, but the people of all nations everywhere are giving profound thought. Friend and foe, citizen and soldier, civilian and official the world over are deeply concerned as to where our Government will stand.

Does anybody question what our soldiers on the battle line think of a peace without punishment? Does anyone believe that the mothers of these soldiers will submit without protest to an inconclusive termination of this war, or that the great body of American manhood at home will accept terms for Germany that leave her as a nation unhumbled and unscathed?

If the sentiment of the people has been so unmistakably ascertained—as recent vigorous and outspoken expressions through the newspapers, in public speeches and elsewhere would seem to definitely prove—why lingers anywhere the lurking doubt that always and wherever America's voice may be heard the demand of this nation as a nation shall be that justice, inexorable, adequate and complete, shall be meted out to Germany, the arch-criminal of all time?

Does the public fear that over-exalted idealism may soften the will to punish rigorously when once the prisoner is in the dock, or is it feared that there may exist sinister influences among the advisors of the nation's chief?

It is important that this situation be clarified. Our Presidents are elected by the people's votes, and are thus the servants of the public and subservient to the end to what the majority may will. The advisers of the Presidents, particularly if they are men in private life, exercising a power that the people never have had a voice in delegating, are, without this check, a law unto themselves and are thus the proper subjects of jealous watchfulness and care. It is hardly to be wondered at, therefore, that just at this crisis in world affairs and as to America's attitude toward the inevitable ultimate German peace there should be in many quarters a searching inquiry as to what views may be held on world affairs by the advisers to whom President Wilson gives greatest heed.

Who are the chief advisers of the President?

Has it been observed and recorded that they are among the members of the United States Senate, that body which under the Constitution is given co-ordinate power with the President in treaty discussions and the conclusion of peace?

Does any set of men or any individual stand out, distinct and prominent, as the President's adviser with anything approaching the distinctness and prominence that Col. Edward Mandell House of Texas and New York does now and has done from the time that Woodrow Wilson emerged from Princeton as a Presidential possibility?

Wilson's visits to House are accepted as commonplaces by newspaper readers, and it was too much a matter of course to excite more than perfunctory comment that when the answer to the Prince Max German peace note was under consideration "President Wilson returned to Washington accompanied by Col. Edward M. House, his confidential advisor in international matters." (New York Times, Washington dispatch, October 14.) As if to eliminate from the public mind any possible doubt as to Colonel House's influence on President Wilson's decisions, a recent biographer has emphasized the point again and again in terms such as these:

#### House the President's Chief Counsellor.

"He is the President's principal counsellor, probably the only man upon whose advice Woodrow Wilson leans with implicit trust." ("The Real Colonel House, an Intimate Biography," by Arthur D. Howden Smith, Geo. H. Doran Company, publishers, New York, 1918, page 36.)

"He holds a power never wielded before in this country by any man out of office, a power greater than that of any political boss or cabinet member. He occupies a place in connection with the Administration which is anomalous, because no such place ever existed before Woodrow Wilson became President of the United States." (Ibid., page 14.)

"Until President Wilson writes his autobiography we shall not know the extent of the influence House has had upon the President's policies. Colonel

House will never breathe a word to indicate it, but there is ample excuse for assigning him credit as chief adviser in the formulation of all of the President's important decisions." (Ibid., pages 15-16.)

Smith's book on House first appeared in serial form in the New York Evening Post, on which newspaper Mr. Smith was employed as a writer. Some slight changes in the text have been made in the book, indicating careful revision. An author's note announces a long acquaintance and friendship with Colonel House. No repudiation of the statements in the book have ever been made on behalf of Colonel House or President Wilson, and it is assumed that the book, therefore, has at least the tacit approval of Colonel House and the President.

In this highly laudatory book of 303 pages the personal history of House and his political and diplomatic activities are related in detail. His work in behalf of Governor Wilson's nomination for the Presidency in 1912 and the close friendship that immediately ensued on the first meeting of the two is fully described. House's large part in the formation of the first cabinet is revealed, and then:

"It is an open secret that Colonel House's role in the Administration at first was that of political next-of-kin to Mr. Wilson, an all-around counsellor and conciliator. His wits fairly itched to get at the international problems, which were the most interesting phase of governmental work to him." (Page 140.)

Smith's book discloses that the President and Colonel House perceived the coming world war in 1913 (page 150), and "the preliminary signs of the most horrible catastrophe in the world's history were to be seen." (Page 153.)

And yet even then, and until "the very morning that the United States was dragged into war" (page 151) every activity of the Administration is stated to have been against preparedness on the part of this country and to induce the Entente Allies to make peace on "reasonable terms," a "just peace." (Page 235.)

"Until April, 1917, as Colonel House puts it, the President was scrupulous to do nothing which could be interpreted by either side as indicating an intention to abandon neutrality. [It was for this reason that he refused resolutely to make advance military preparations, although many of his advisers urged him to take some steps to put the army on a war footing. He thought that if he did anything like this it might be interpreted in Germany as a threat of aggression and would tend to undermine the German belief in the disinterestedness of this country's stand."]—Evening Post, April 13, 1918, somewhat changed in the book, page 226.

Since the first Presidential nomination of Mr. Wilson, Colonel House has made four trips to Europe, outside the present "mission." On three previous occasions he has gone as personal representative of the President, or "super-ambassador," as called in Smith's book. His talks with potentates and powers are fully outlined in this book of Smith's, and his efforts in behalf of a negotiated peace are fully set forth.

"Never in history has any foreigner come to Europe and found greater acceptance or wielded more power," says his biographer. "Behind this super-ambassador, whose authority and activities are unique, stands the President. (Page 252.)

"The President is just as determined to secure justice for Germany as he is for Belgium." (Page 268.)

"Some day, perhaps, Colonel House's lips will be unsealed, and he will be able to tell the world of the answer he received" (from the Kaiser on June 1, 1914), "from the man who, several years before, had sorrowfully told his royal sister, when they met for a private talk in Sweden, that he was no longer the ruler of Germany; that he would lose his throne if he attempted to thwart the military party." (Page 109.)

Ever eager for a negotiated peace with the Germans, who manifestly were never regarded in the light of criminals by him, Colonel House urged in London, in 1914-15, the advisability of meeting Germany part way (page 185), and early in 1916 he "suggested the possibility of relaxing the food blockade of Germany in return for a mitigation of submarine activities." (Page 202.)

#### Is This the Man to Represent America When Fixing Punishment for the Hun?

That the monstrous immorality of the war does not weigh heavily in any consideration given to its settlement by Colonel House would seem to be indicated by this naive confession:

"I think it is my memory of early times in Texas which keeps me from being as shocked as some people are at the dreadful slaughter of this war," he once remarked. "To a man who can remember when bad men killed for sport in open daylight in city streets and desperadoes swarmed in bands and ruled whole tracts of country, the destruction of European lands is not so startling, after all." (Page 24.)

Manifestly it is all a game, a matching of wits with internationals' wits, in a detached sort of way, as by one of whom it is said: "He has never attended a convention of any kind, educational, religious or political. He never belonged to a church or order of any kind." (The North American Review, April, 1916, page 557.)

Familiar as he was with the experiences of the German, British and French governments in the war, Colonel House was able to take a candid and

unprejudiced view of all the nostrums, cure-alls, win-the-war-quick remedies and "can-the-Kaiser" schemes which were brought forward by scores of well-meaning persons and organizations." ("The Real Colonel House," page 238.)

It is revealed that Colonel House has long favored the plan to end the war by fostering internal dissensions among the peoples of the Central Powers.

"Colonel House was one of the earliest supporters of the strategic theory of attacking the Central Powers from within with propaganda designed to stir the masses to rebellion and to drive wedges between Germany and Austria. Long before the United States entered the war he advocated this policy in informal talks with the statesmen of the Entente countries, but they declined to see the possibilities in it. A few spasmodic attempts were made, but for the most part the Allied Governments persisted in believing that there was no difference between the German Government and the German people. They insisted all through the first two years of the war in talking about annihilating Germany, rearing an economic barrier to stifle German trade and partitioning Austria. Of course, this was playing directly into the hands of the German military clique." (Pages 243-4.)

"It was not until President Wilson practically took over the management of the diplomacy of the Entente Allies, in the summer of 1917, that any real effort was made to undermine the morale of the German people by intellectual means. The results of Mr. Wilson's policy of fighting behind the enemy's lines are already becoming apparent, but the full effects of his attacks with the pen are not yet realized, even in the Teutonic countries." (Page 244.)

**One of the most astounding propositions put forth by Colonel House was the "freedom of the seas" offer he made to the Germans on a visit in 1915. In describing this meeting with the statesmen at Berlin the biographer says:**

"They gave him fair words, but no satisfaction, until he extended, as a fisherman casts his bait, a certain phrase of five words, 'the freedom of the seas.' So far as can be determined, Colonel House was the originator of this much-debated doctrine, at least in its connection with the problems raised by the present war. No previous mention of it has been found. It met with prompt response. \* \* \* Colonel House meant \* \* \* literal, unlimited freedom of the seas, which would imply the safety of merchantmen in enemy ports on the declaration of war; the safety not only of food cargoes, but cargoes of actual contraband; the uninterrupted progress of the world's ocean-borne commerce in the midst of the most widely-dispersed war." (Pages 188-189.)

"A vista opened before the eyes of the leaders at Berlin. \* \* \* Perhaps they thought only of the nullification of the preponderating naval power of Great Britain and the abolition of the blockade which was cutting off Germany from her sources of raw material." \* \* \* "The immediate effect of his suggestion of the doctrine at Berlin was to obtain the prompt and enthusiastic assent of Germany." (Pages 189-190.)

Is there any occasion for surprise that "the freedom of the seas" was a phrase from which the Englishmen shied instinctively, since the effect of the adoption of the freedom of the seas doctrine would be to abolish the maritime blockade of Germany and its allies, while not preventing the Germans and their allies from waging absolute war on land?

An interesting chapter on "Preparing for the Peace Conference" begins in Mr. Smith's book on page 262 with the following sentence:

"In September, 1917, the President appointed Colonel House to organize the laborious task of gathering and tabulating the mass of data which will be required by the American delegates to the Peace Conference at the end of the war."

#### Plea for Special Consideration of Teutonic Allies on Account of Their Sufferings in the War.

An outline of the work under way is given, and in mentioning the subjects to be considered, this paragraph occurs:

"Still another important subject of study is the economic needs of the Central Powers. The Teutonic allies may be relied upon to make a plea for special consideration, in view of their sufferings in the war. \* \* \* The delegates of the United States will be provided with full statistics covering a period of years, showing the various economic needs of Germany and Austria-Hungary, how they may be satisfied and the exact amount of their natural resources which must be supplemented from outside."

"The freedom of the seas is the fifth question which is occupying the inquiry's attention." (Page 272.)

"In "Face to Face With Kaiserism," by Ambassador Gerard, which book is dedicated to Colonel House, German opinion of Colonel House is indicated on pages 95-96, as of date April, 1916:

"I think that the Germans would now, in spite of previous statements by a high authority, welcome the intervention of the President looking toward peace. **Colonel House is so relied on here that he would be doubly welcome as the bird with the olive branch.**"

Put forward as the ideal man to represent the United States at a peace conference, Mr. Gerard says (page 367):

"In concluding the peace negotiations, President Wilson will have the benefit of the service of Colonel House, the one man who, I believe, is best fitted to protect the interests of America and of humanity at such a conference. I, of course, saw Colonel House during the war in Berlin and in America, and I consider that no man alive is his superior in either knowledge of the whole situation or in ability to cope with the trained diplomats of Europe."

That America should be represented at a peace conference by any "super-ambassador" is strongly opposed in principle by members of the United States Senate and vast numbers everywhere. That Colonel House is qualified to interpret the thought and feeling of the United States on the war and on peace has been gravely questioned in many quarters. He admits in Howden Smith's book, page 306, that he is an iconoclast in matters of government. There is nothing shocking to him in the awful slaughter of this war; "justice" to Germany in any peace settlement is just as much to be insisted on by him, manifestly, as

justice to Belgium or any other of the allies; "peace to a war-weary world" has long been, as quoted, his ever-dominant desire, and following peace, and above all is the "itch to get at international problems," the opportunity, backed by the full authority of the President of the United States,

"To grasp this sorry Scheme of Things entire,  
\* \* \* shatter it to bits—and then  
Remold it nearer to the heart's desire!"

In 1912 there was printed anonymously by B. W. Huebsch, New York, a weird book on government, entitled "Philip Dru: Administrator—A Story of Tomorrow—1920-1935." Philip Dru is also an iconoclast in matters of government, and after organizing the masses he meets the classes in battle, completely demolishes the existing order and sets up as dictator of the United States and administrator of the world. The authorship of this work has been repeatedly charged to Colonel House; for instance, by Col. Geo. Harvey in War Weekly, January 5, 1918, and more recently by Senator Lawrence Y. Sherman of Illinois in a speech in the Senate September 3, 1918, and the charge has never been denied.

Two little touches, whimsical and fantastic though they are, would be sufficient to establish relationship between Colonel House and Dru, even though they stood alone. The name of Mandell House is given to a hotel mentioned in the book (pages 73-74), and in an inverted way the relations between President Wilson and Colonel House are referred to, in second paragraph, page 167, in this wise:

"One of his advisers was a man of distinguished lineage, but who, in his early youth, had been compelled to struggle against those unhappy conditions that followed reconstruction in the South. His intellect and force of character had brought him success in his early manhood, and he was the masterful head of a university that, under his guidance, was soon to become one of the foremost in the world. He was a trained political economist, and had rare discernment in public affairs, therefore Dru leaned heavily upon him when he began to rehabilitate the Government."

Whether the actual work of planning the book was done by Colonel House, or that his activities and views merely furnished the inspiration to some writer who knew him intimately, it is amply demonstrated that Dru's views and House's views are identical at many important points, and the assumption seems altogether warranted that Dru is House in untrammeled action.

Whether inadvertently or with intent as to the implication, Henry Herbert Childers, a newspaper friend of Colonel House from Texas days, quoted in an article in the North American Review of April, 1916, pages 562 and 563, sentiments and beliefs of Colonel House that are identical—in large part word for word—with expressions in *Philip Dru: Administrator*. In parallel columns these passages are given below:

#### Quotations from "Philip Dru: Administrator."

*Dedication of Philip Dru: Administrator:*

This book is dedicated to the unhappy many who have lived and died lacking opportunity, because, in the starting, the world-wide social structure was wrongly begun.

#### "A Friend's View of Colonel House."

By Henry Herbert Childers, in North American Review, April, 1916 (pages 562, 563):

"I recall his saying to me, in substance, that the whole fabric of society and government has been wrong from the beginning. I positively know that if, in a redistribution of amassed riches, the greater part of his fortune were taken from him, he would see it go with serene composure and without protest. Quoting him literally:

*Philip Dru: Administrator, pages 57-58:*

In a direct and forceful manner he pointed out that our civilization was fundamentally wrong, inasmuch as among other things it restricts efficiency. If society were properly organized there would be none who was not sufficiently clothed and fed. The laws, habits and ethical training in vogue are alike responsible for the inequalities in opportunity and the consequent wide difference between the few and the many; that the result of such conditions is to render inefficient a large part of the population, the percentage differing in each country in the ratio of ignorance, bigotry and selfish laws.

"Little progress had been made in the early centuries for the reason that opportunity was confined to a few, and it is only recently that any considerable part of the world's population has been in a position to become efficient. Therefore, as an economic problem, divorced from the realm of ethics, the far-sighted statesmen of tomorrow, if not today, will labor to the end that every child may have an opportunity to accomplish that for which it is best suited. Their bodies will be properly fed and clothed, so

woman man  
accomplish  
gated. The  
clothed an  
amount of  
mean some  
struggle fo  
a whole w  
share tow  
complex fo  
will be bro  
and spiritu  
make our  
as crude, a  
that of the  
Philip Dru  
"No war  
existing we  
violation of  
a constant  
the condit  
favored by

Philip Dru  
I believe  
ing to the  
tion is fair  
final comp  
grow, it is p  
to full fruit  
differenc  
measure of

Philip Dru  
I know t  
should be,  
more even  
at lesson  
strong, ab  
without ma  
dolent and  
pure social  
highest end  
would see  
more than  
would the  
lifting itsel  
desire to e  
reward tha

Philip Dru  
Socialism  
Marx can  
by a comp  
ownership  
wealth.

Working  
that societ  
wrong, Dr  
vided new  
wages and  
every prob

Chapter  
had put in  
to be "not  
term to a  
delved at I  
constitution  
the recall;  
ment, who  
or recomme  
subject to

Dr. The  
the hands  
ing, in Br  
the duty o  
mental law  
What  
affairs of  
Chapter N  
that he w  
As it was

woman may have an opportunity to accomplish that for which it is best fitted. Their bodies will be properly clothed and fed at the minimum amount of exertion, so that life may mean something more than a mere struggle for existence. Humanity as a whole will then be able to do its share towards the conquest of the complex forces of nature, and there will be brought about an intellectual and spiritual quickening that will make our civilization of today seem crude, as selfish and illogical as that of the Dark Ages.

*Philip Dru: Administrator, title page:*  
"No war of classes, no hostility to existing wealth, no wanton or unjust violation of the rights of property, but a constant disposition to ameliorate the condition of the classes least favored by fortune."—Mazzini.

*Philip Dru: Administrator, page 45:*  
"I believe that mankind is awakening to the fact that material compensation is far less to be desired than spiritual compensation. This feeling will grow, it is growing, and when it comes to full fruition the world will find but little difficulty in attaining a certain measure of altruism."

*Philip Dru: Administrator, page 44:*  
"I know that things are not as they should be, but how can there be a more even distribution of wealth without lessening the efficiency of the strong, able and energetic men and without making mendicants of the indolent and improvident? If we had pure socialism, we could never get the highest endeavor out of anyone, for it would seem not worth while to do more than the average. The race would then go backward instead of lifting itself higher by the insistent desire to excel and to reap the rich reward that comes with success."

*Philip Dru: Administrator, page 45:*  
"Socialism as dreamed of by Karl Marx cannot be entirely brought about by a comprehensive system of State ownership and by the leveling of wealth."

#### Iconoclasm Run Wild in Matters of Government.

Working in the belief that in the beginning things were not started right, that society is not properly organized and that our civilization is fundamentally wrong, Dru overturned all the old forms of government and society. He provided new national and State constitutions, reorganized the judiciary, regulated wages and bonuses of workmen and attempted to cover by legislation practically every problem of existence.

Chapters XLI and XLII give the new national and State constitutions Dru had put into effect, the old constitution and laws having been declared by him to be "not only obsolete, but even grotesque." "Iconoclastic" is a rather mild term to apply to the overturning which the present form of government received at Dru's hands. The courts were deprived of their power to pass on the constitutionality of laws; all Congressmen and Senators were to be subject to the recall; States were to become in effect departments of the Federal Government, whose Governors had no veto power and were prohibited from suggesting or recommending any legislation, and whose Senate and Governor were alike subject to the recall. (Pages 244-8.)

Dru's attack on the judiciary received attention and condemnation at the hands of the New York Bar Association, when at its fortieth annual meeting in Brooklyn in January, 1917, it adopted the report of its committee upon the duty of courts to refuse to execute statutes in contravention of the fundamental law.

What the world administrator set out to do in the way of regulating the affairs of and the relations between all the nations of the earth is given in Chapter XLVII, page 272, et seq. Dru "felt that it was almost providential that he was in a position to handle it (the foreign situation) unhampered." As it was worked out by him England and America were to join hands in a

that life may mean something more than a struggle for existence. Humanity as a whole will then be able to do its share towards the conquest of the complex forces of nature, and there will be brought about an intellectual and spiritual quickening that will make our civilization of today seem crude, as selfish and illogical as that of the Dark Ages."

"Agreeing with Mazzini, Colonel House thinks there should be 'no war of classes, no unjust violation of the rights of property, but a constant disposition to ameliorate the condition of the classes least favored by fortune.'

"Preferring spiritual to material compensation, he has thus expressed his views:

"I believe that mankind is awakening to the fact that material compensation is far less to be desired than spiritual compensation. This feeling will grow, it is growing, and when it comes to full fruition the world will find but little difficulty in attaining a certain measure of altruism."

"Touching Socialism, he says:  
"I know things are not as they should be, but how can there be a more even distribution of wealth without lessening the efficiency of the strong, able and energetic men, and without making mendicants of the indolent and improvident?"

"If we had pure Socialism, we could never get the best endeavor out of anyone, for it would seem not worth while to do more than the average. The race would then go backward instead of lifting itself higher by the insistent desire to excel and to reap the reward that comes with success."

"Socialism, as dreamed of by Karl Marx, cannot be entirely brought about by the leveling of wealth."

world-wide policy of peace and commercial freedom. Custom barriers were to be torn down, zones of influence clearly defined for all the world and an era of friendly commercial rivalry established.

Germany was to have the freest commercial access to South America, and she was invited to develop those countries both with German colonists and German capital. Germany was also to have a freer hand in extending her sphere of influence over the countries lying southeast of her and in Asia Minor—a fulfillment of her Mittel-Europa dream.

The necessity of England's supremacy of the seas was recognized, and in consideration of the United States lifting practically all custom barriers and agreeing to keep out of the Eastern Hemisphere, upholding with her the peace and commercial freedom of the world, England, with Canada's consent, permitted Canada to come under the political influence of the United States.

"The Philippines were given their independence under the protection of Japan, and Japan and China were to have all Eastern Asia as their sphere of influence, and if it pleased them to drive Russia back into Europe, no one would interfere."

"Thus Dru had formulated and put in motion an international policy which, if adhered to in good faith, would bring about the comity of nations, a lasting and beneficent peace and the acceptance of the principle of the brotherhood of man."

[If the diplomatic crisis of the war is at hand, as some interpreters of the President's latest note to Germany have just declared it to be; if it is intended by the Administration, as claimed by some, that the allies as well as Germany shall give unquestioning adherence to the Wilson fourteen principles of peace, and if this means, as feared, a possibility that we may be put into the position of advocate of Germany in the peace discussions which are to come, shall we be content to leave to Colonel House the delicate task of trying to extricate America from a position so repugnant to the nation as a whole?

Even if he were not an extra-constitutional appointee, even if he had been commissioned by the people to represent them at this time, are the expressed views of Colonel House on government, justice, national honor, and, concretely, Germany's culpability in this war, of such a nature as to inspire the fullest confidence? Moreover, if later on he had to sit at a peace table with German diplomats, the shrewdest, keenest, most subtle and most unscrupulous of the world, now backed into a corner and fighting desperately for life itself, would he be equal to saving the honor of America? We believe not.

Are the people satisfied with the situation as it stands?—Editor MANUFACTURERS RECORD.]

## A 16-Page Pamphlet

### Germany— The Super-Fiend

#### A Nation Gone Mad in Its Lust for Power and World Dominion.

A discussion of the Fallacious Doctrine that "Might Makes Right" and "As the State Can Do No Wrong, if the State Orders Crimes Committed, It Ceases to Be Crime."

The German Nation's Brutality a Natural Product of German 'Kultur.'

The Degradation of Childhood and Womanhood by Germany.

Confirmation of Thyssen's Damning Revelations of Germany's War of Murder for World Conquest.

Including views of Otto H. Kahn, of Kahn, Loeb & Co., and the revelations of Dr. Muehlon, former director of Krupp.

Trying to Repeat in America the Ruin Wrought in Russia.

We Must Fight the Blood Lust of the German Tiger Unto His Death.

Time to Think Straight as Well as to Shoot Straight.

A Slander on The Yellow Dog.

The Fighting Eagle of America.

Published by  
Manufacturers Record, Baltimore, Md.

5 CENTS PER COPY  
25 OR MORE AT 4 CENTS PER COPY  
500 OR MORE AT 3 CENTS PER COPY

# Woodrow Wilson for International President?

THE INTER-ALLIED SOCIAL DEMOCRATS ARE SAID TO SUPPORT HIM FOR THE HEAD OF THE LEAGUE OF NATIONS.

The Black Diamond, organ of the coal trade, in a recent issue says that the Inter-Allied Social Democrats of the World are backing President Wilson for the head of the League of Nations. In view of the many amazing developments which come to the front from day to day, the statement by the Black Diamond will be of interest, whether one accepts it as correct or not. It is as follows:

"Relying upon our promise not to disclose his identity and upon our discretion, a gentleman in high official life in Washington wrote us this week a letter containing a most interesting piece of conjectural news. It ran, to abbreviate his phrasing, somewhat after this fashion:

"When this war shall have ended, the proposal is to form a league of nations. It is proper to assume that the men who form it will not choose the imperialistic form, since they are fighting against warlike imperialism. Instead, it will take the democratic form, since the countries are fighting to make the world safe for democracy. Therefore, we can expect that the new Government will be a democracy, taking some such title as 'The United States of the World.'

"It will, undoubtedly, be the purpose to constitute a delegate assembly similar to the Congress of the United States; to have an executive similar to the President of the United States, and to organize a court similar to the Supreme Court of the United States. In a word, the world will be governed by three co-ordinate branches—the legislative, the executive and the judicial. That is the way democracy expresses itself. These representatives, so gathered from the constituent nations, will proceed to elect a President, much as the Electoral College does in the United States.

"Since the United States is now admitted to be one of the leading powers of the world, and since he has been familiar with the workings of that form of government, the logical candidate for the first Presidency of the United States of the World is Woodrow Wilson.

"The very interesting further suggestion contained in this letter is that our President will be the candidate of the Social Democrats of the world. In support of that suggestion there is put forth a very interesting series of facts.

"The Socialist and Labor parties of the Allied nations held a conference and on February 14, 1915—nearly four years ago—made a declaration of principles which in every respect is strikingly similar to the declaration of principles of President Wilson in his state paper of January 8, 1918.

"They followed the same theme that President Wilson used—that the people of the world are not fighting the people of Germany, but only the German military system.

"The Socialists and Democrats stand flatly, as the President did, for the self-determination of the people of the nations. In fact, their declarations agree with his point for point.

"The Inter-Allied Labor and Socialist parties held another conference at Central Hall, Westminster, London, on February 23, 1918. It thereupon put out another declaration of principles. This adopted President Wilson's phraseology about making the world safe for democracy; pleaded for a league of nations, which he himself had espoused; and then went one step further. It declared flatly for this new idea:

"*That systematic arrangements should be made on an international basis for the allocation and conveyance of these commodities (foodstuffs, raw materials and merchant shipping) to the different countries in proportion, not to their purchasing powers, but to their several pressing needs; and that within each country the Government must for some time maintain its control of the most indispensable commodities, in order to secure their appropriation, not in a competitive market mainly to the richer classes in proportion to their means, but systematically, to meet the most*

*urgent needs of the whole community on the principle of the "no cake for anyone until all have bread."*"

"Since that time there has been in Washington prolonged agitation for control of raw materials in this country. This is proposed not only for the period of the war, but for a considerable time thereafter. Indeed, the international committee for the allocation of foodstuffs and raw materials has already been effected under the leadership of Bernard M. Baruch, one of the President's advisers. The plan is said to be under way for long-time control of these raw materials, to make effective our conditions of peace.

"Seeing the parallel between the views of the Allied Socialists and the state program of the American Government, our informant looks upon it as logical that Woodrow Wilson should be the candidate of the Social Democrats to be the first President of the United States of the World.

"Up to this point the gentleman's letter looked like very plausible reasoning. But suddenly he developed that curious vein of humor once displayed by Benjamin Franklin in a critical situation. The gentleman applies the principle of 'the right of self-determination' to affairs which we understand thoroughly as distinct from the European situation, which we do not quite understand.

"He presumes that the league of nations has been perfected and that the right of self-determination has become an internationally accepted principle. Then he says there is nothing to prevent a revival of the Southern Confederacy and its insistence that for fifty years it has been held in the American Government by force of arms. It could thereupon declare its right to secede.

"He says, further, that California has never agreed with the Asiatic policies of the United States. He says there is nothing, if the right of self-determination prevails, to prevent it from seceding from the American Union that it may draft an Asiatic policy for itself.

"The vein of sardonic humor in the last suggestion leads us to suspect that the gentleman is playing a Ben Franklin trick of teaching a lesson by parable."

## 4,500,000 Barrels of Mexican Oil Shipped by Eight Companies in September.

Tampico, Mexico, October 24—[Special.]—Eight of the oil companies operating in the Gulf coast fields of Mexico shipped a total of 4,466,166 barrels of oil through the ports of Tampico, Port Lobos and Tuxpan during the month of September. Only a small part of these shipments was refined and distilled petroleum. It is expected that when the reports of all the companies are in for last month the total will show a considerable increase over that of the preceding month. It is stated that less than 650,000 barrels were coastwise shipments to Mexican ports. The companies with the total shipments of each for the month of September, follow:

Aguila (Eagle) Oil Co., 964,763 barrels; Huasteca Petroleum Co., 1,695,101; East Coast Oil Co., 274,282; National Petroleum Co., 31,175; Cortez Oil Co., 342,122; the Texas Company, 177,867; Freeport Mexican Fuel Oil Co., 320,601; Penn-Mex Fuel Co., 660,204.

## Florida to Hold State Fair at Jacksonville.

Jacksonville, Fla., October 28—[Special.]—Judging from the present outlook, the second Florida State Fair and Exposition, which will be held in Jacksonville from November 27 to December 6, inclusive, in conjunction with the Farmers' National Congress and Pan-American Livestock Exposition, will by far eclipse the first event staged in the spring of the present year, and will be the means of attracting thousands of people to the State who heretofore have considered Florida only in the light of a conglomeration of orange groves and truck farms.

Success attended the first Florida State Fair and Exposition, handicapped as it was by inclement weather, but far greater success is anticipated for the second Florida State Fair, and up to the present a total of 40 of the 52 counties in the State have signified

their intention of participating with exhibits of their varied agricultural, horticultural and livestock products.

The annual meeting of the Farmers' National Congress, representing as it does over 5000 substantial agriculturists of the United States, held in conjunction with the big Florida State Fair, will bring these experienced farmers to Florida, where they will be shown the agricultural and livestock possibilities of the Commonwealth, and to which the citizens of the State are just now awakening. Meetings of the delegates to the Congress will be held on alternate days with those to the Pan-American Livestock Exposition, and on the off days side trips through the stock-raising and agricultural sections will be enjoyed.

Never before in the history of Florida has the opportunity to show to the world her wonderful and varied agricultural and livestock possibilities presented itself as at the coming State fair, and the visit of representatives from South American and Central American countries to the Pan-American Exposition will demonstrate the many things in common enjoyed by this part of the United States and those nations.

In view of the coming events, the great ports of Florida—Jacksonville, Tampa, Miami and Pensacola have begun to prepare for the after-effects, which, representative citizens in each city declare, will mean greater export and import trade with the Latin-American countries.

## Activity in Mexican Mining Operations.

Monterey, Mexico, October 24—[Special.]—Mining operations continue to show a steady improvement in practically all of the larger districts of Mexico, with the exception of those that are more remotely situated in the States of Durango and Chihuahua. Many of the larger American mining companies are preparing to bring their respective properties up to the normal state of production that existed prior to the revolutionary period of the country. It is authoritatively announced that the American Smelting & Refining Co. plans to not only bring its several smelters and mines in Mexico up to their former full outputs of bullion and ores, but that it has appropriated \$4,000,000 gold to be expended in enlarging its operations in this country.

The railroad traffic situation is the most serious hindrance to a general resumption of industrial activities. The lack of transportation equipment and the poor physical condition of the various lines comprising the National Railways of Mexico, now officially called, however, the Constitutional Railways of Mexico makes it difficult for many mines, manufacturing plants and other enterprises to carry on the full scope of business that is demanded of them.

## Inspecting Lands Suitable for Soldier-Farmers.

New Orleans, La., October 25—[Special.]—H. T. Cory of the United States Reclamation Service and A. G. T. Moore, director of cut-over land utilization of the Southern Pine Association, have just returned from a tour of inspection of possibilities for the Government's colonization plans for returning soldiers.

The tour embraced the Everglades of Florida, the abandoned rice fields of the Carolinas and Georgia and many cut-over regions. Both were more firmly convinced than ever of the wisdom of Secretary of the Interior Lane, who originated the plan by which the Government will prepare land for occupancy and sell it to soldiers at cost on long terms.

At a meeting of the Southern Land Congress, to be held at Savannah, Ga., November 11 and 12, Secretary Lane will make public the results of his preliminary investigations, together with his conclusions.

## Ingersoll to Use Cypress in "One-Piece" Houses.

Jacksonville, Fla., October 26—[Special.]—For the purpose of investigating the various qualities of cypress lumber, Charles H. Ingersoll of New York, originator of the "one-piece house," which has solved the housing problem in many Eastern communities, has just completed an extensive survey of the cypress-producing sections of Florida, with the idea of utilizing this material in the concrete molds of his one-piece dwellings.

The results of the visit of Mr. Ingersoll to Florida were the placing of several orders for a large amount of cypress for immediate shipment to the East.

Unless Germans learn through the invasion of their own country by the allied troops the real meaning and the horrors of war, they will in a few years forget all present protestations of peace and be ready to start another war. We are not fighting merely to win this war, but to make it certain that Germany will never start another war. If we fail in our duty to invade and conquer Germany fully and completely, we shall be false to the future and millions will have to die in some future war because we proved too cowardly to really win this one.

## Germany and Peace

By HERBERT WHITING VIRGIN, D.D., A. E. F.

[The Rev. Herbert Whiting Virgin, D.D., the writer of the following letter sent from France, October 14, to the Manufacturers Record, is one of the foremost Baptist ministers of Virginia, a man of the highest integrity and worthy of the most implicit confidence. He is divisional chief secretary of the Y. M. C. A., American Base No. 6, A. E. F. Dr. Virgin left the pastorate of one of the leading churches in Virginia to join the Y. M. C. A. in France. This letter comes straight from the battlefield to the Manufacturers Record. It is a ringing cry from a man of God for a punishment of Germany which shall teach the Germans a lesson which may forever prevent that nation from again deluging the world with blood.]

Dr. Virgin writes of what he, himself, has seen. Every word of his letter should be burned into the conscience of the American people, from the President down to the most illiterate and the poorest in the land.—Editor Manufacturers Record.]

Germany is hopelessly defeated. She is suing for peace. But while she is suing for peace she is sinking vessels with not an ounce of war material in their holds, but crowded with men, women and children, all civilians. She is doing this in broad daylight, without the semblance of excuse, for the submarine commander could see the nature of the vessel he was torpedoing.

Germany is suing for peace, but while her defeated armies are retreating toward the Rhine she is burning towns and villages, mining beautiful buildings with time explosives, to destroy our victorious troops as well as the buildings at the same time. Foul brigands that they are, they are stealing anything and everything of value they can lay their hands upon. More, they are driving men and women and children into slavery still. Mark you, this is going on now, the fifth year of the war, not the first, and while the barbarians are crying for peace!

Are there any words in our language which can express the righteous indignation which civilized people should feel against the barbarous warfare which they are still conducting?

Germany is defeated. She has driven refugees into slavery worse than death, and I have tried to save some on the Allied side of the line. She has driven hundreds and thousands into slavery on the other side of the line, and only God knows the horrors through which they have gone. And she is doing this now, in the fifth year of the war, as she did it in the first. And she is crying for peace, while conducting her hellish warfare against all laws of civilization!

Is it possible to deal with a nation whose fiendish acts are the very deeds of hell on the basis of dealing with foes who are equals and who conform to the same code of international laws as we do?

Or, suppose the nation has been hypnotized by a concept emanating from the Prussianized military powers, are we to deal with a people who are under such a spell as we would with those who are normal?

Are we to treat robbers as we do honest men?

Are we to treat incendiaries as we do protectors of property?

Are we to treat vandals as those who conserve?

Are we to treat despoilers of girls and women as those who reverence womanhood?

Are we to treat murderers as those who love their fellow-men?

Are we to treat madmen as those who are sane?

It is not only preposterous, but it is the greatest injustice to a civilization which has been blasted and blighted by these vandals.

It is an injustice to that civilization which has its basis in the lessons of the Cross.

Why do not men who cry for compromise, or a sort

of willy-nilly clemency, apply the same principles to the moral problems at home? They would have to do away with laws, with peace officers, with courts, with jails and penitentiaries and asylums, and, yes, capital punishment! We dare not turn violators of the law loose upon a law-abiding citizenship! We must punish to protect. This is equally true with nations as with individuals.

I protest in the name of a civilization which has been thrown back for at least a century, and which will suffer a century more.

What about our own boys? I have seen the blackened backs of boys who have suffered from the mustard gas. There are hundreds who have been affected in a way I cannot describe in print. They are living—at least until a remedy is found—a living death. I have seen others suffering from the effects of other gases less deadly but excruciatingly painful, and these brave lads were raised to believe in and to fight an honorable warfare. Reprisals were the only remedy which had any effect on the German.

I have talked with a clergyman who was for three years in a captured town. He pleaded for his suffering fellow-citizens who were being sent into a slavery or being murdered. The only satisfaction he got was "What are 10,000 more corpses to me?" Now that Germany is on the verge of an invasion, and she will, if invaded, have to suffer as Belgium, France, Roumania, Serbia and Russia have suffered, she cries for peace and clemency!

There should be a dictated peace, not a negotiated peace, and as Senator Lodge stated, "it must be a dictated peace, and we and our Allies must dictate it."

Let us punish leaders, that those who follow may not forget or aspire to leadership.

Let us insist upon indemnities, not for ourselves, but for our Allies, that those who despoiled may never forget the price they had to pay for their despoilation.

Let us control Germany's iron and coal industries, that they may never again be able to amaze the world with an engine of war, as they did when they leveled the forts of Liege with their 16-inch howitzers.

Let us insist upon a government of the people and by the people and for the people, and banish forever the Hohenzollern dynasty and the Prussian military leaders, that there shall not burst upon a suffering humanity a similar series of horrors.

Let us restore that which has been stolen from France and other nations.

Let us establish and police the world by some international compact, that peace may be assured.

And when Germany is cured of her malady, let us treat her as normal and equal, and not until then!

A. E. F.—A. P. O. 752, France.

## An Unbeaten, Unpunished Germany Would Humiliate Our Nation.

New York, October 3.

*Editor Manufacturers Record:*

We beg to thank you very kindly for your promptness in sending us another copy of your issue of October 10, the writer's secretary finding no copy in our file of this issue and the writer having seen it elsewhere; it must have been lost in the mails.

Your front page should be, in the writer's opinion, engraved on the heart of every red-blooded person in the United States, and, for that matter, in the world.

We are accumulating in this office a little exhibit, and have a little bulletin for choice cartoons, depending to date on the New York Herald.

This illuminating page will be pasted up on our office bulletin and stay there, and we shall read it and refer to it frequently with the same interest and sense of satisfaction that we experience every time we read again President Wilson's reply to Germany, dated in Washington Monday, the 14th inst.

Your paper has stood for a settlement with this band of robbers which is entirely in accord with justice, and our soldiers at the front which would be humiliated and disgusted if any other sort of peace was ever made with this nation than that you have stood for since the war started.

Congratulating you on your high stand and wonderful articles, which we read in the office and also in our homes, the writer remains,

Yours for victory by military decision,

PACIFIC FLUSH TANK CO.,

S. F. MILLER, President.

## A Let-Down in War Spirit Because of War Notes and Fictitious Peace Talk.

JAMES F. TURNER, Secretary Flynn & Emrich Company, Baltimore, Md.

We take this opportunity to express our appreciation of the wonderful work that your paper is doing at the present time.

May we call your attention to one of your articles on page 3 of the reprint of your October 10 issue, entitled "Do Not Be Deceived; Germany Is Not Crushed; the War Is Not Yet Won."

The writer is surprised that this particular phase of the situation is not brought out more frequently and kept before the people more than it is.

Ninety-nine and nine-tenths per cent. of everything we read in the papers today is practically to the effect that it is all over but the shouting, and this is the feeling of ninety-nine people out of a hundred that you meet today.

What is the consequence? There is a general relaxing from an individual standpoint all along the line. This was reflected very forcibly in the last Liberty loan.

In the writer's opinion, the German peace offensive has been launched, but in an entirely different manner than anyone had expected, and has caught nearly all of us off our guard.

I personally feel that there is a long way to go and much to be done before this war is settled, if it is to be settled in the way that we all declared it must be, and it is for all of us to throw our energies into the fight more today than ever before.

If I am wrong in my conception of matters, no harm will be done, but if I am right, incalculable harm will be done if the country at large begins to ease up and let go in general. Therefore, in my opinion, it would be well to give the very broadest publication to such articles as above referred to.

# THE WORLD MUST CRUSH GERMANISM IN THIS WAR OR EVENTUALLY BE CRUSHED BY GERMANISM. THERE IS NO MIDDLE GROUND, AND HE WHO ADVOCATES PEACE ON ANY OTHER BASIS IS FALSE TO ALL CIVILIZATION.

## Lest We Forget

By REV. EDMONDS BENNETT, D.D., St. John's Rectory, Memphis, Tenn.

**[A heart-searching story from a Memphis minister of Germany's fearful atrocities and God's call for punishment of such black crimes. Rev. Dr. Bennett has done all civilization a great service in this superb call to heroic work to overcome and punish criminal Germany.—Editor Manufacturers Record.]**

The arch apostles of German Kultur, Treitschke and Nietzsche, who have accomplished the indoctrination of their countrymen through all grades with a completeness outclassing the prophet Luther, neglected no invective of contempt for all called Christian, not sparing the Founder.

Christ was the world's master handicap and His religion its great calamity. So they affirm and teach.

The "good old God" of Hohenzollern patronage is not the God of this era, whom these sinister priests of degeneration gayly mocked at as "dead," but the Image of gold, iron and clay their atavism set up for the inspiration of Teutonic Kultur: Pagan rerudescence.

Following them, the reversion of the German nation has been definitely to the collective, composite god of the Canaanitish period. So penetrating has been the inoculation of the pernicious college of propheceteers that cultural brutalism from the soul outwards has been accomplished in the subjects, through every tissue and pulse, and a spiritual deterioration so utter that not only the leaders in chief in all departments of the country's life, but contrary to supposition, even after the war was well under way, the unsophisticated (?) masses had become incapable of even elementally gauging the psychology of peoples unlike themselves. "Evil, be thou my good," had wrought the Satanic in them with such scientific completeness, such unsparing infiltrating through all their processes of thinking and feeling, that words and other symbols no longer signified for them what they mean to other people. Facts not to be forgotten in settling with them.

They had become disqualifed not only for concepts, but for language, which had lost its standardized value. And so great gulf was fixed between them and normal civilization.

"If the light that is in thee be darkness, how great is that darkness." How tragic a diagnosis of the case of the Teuton that sentence pronounces!

Germany asks terms consistent with Germanic honor. What bitterer Nemesis for her than the acceptance of her proposition. No judgment can surpass in severity that her own mouth offers. If her own words are to furnish the standard of her doom and her acts the pattern, which is to say if German "honor" as thereby expressed and illustrated is to lay down the line to which the court of last resort is to hew, then has she pronounced sterner terms than any contemplated yet.

The French poilu whose wife, one month from accouchement, was deprived of both hands by the Uhlan, would have no Uhlan's wife suffer that way in reprisal, and the handless mother herself, when four weeks later the Hun physician who saw her through, being thanked, retorted, "don't thank me, your child will never see," would have no German baby blinded in birth. What then? It is plainly the more imperative for others to secure that equity for the sufferers be vindicated in their sight unforgettably, as far as can be.

We are asked to consider the unmorality of vengeance. What about the morals that would debate an issue like that, and when each atrocity is proven to belong to a series embraced in deliberate ordered plan and system, to an end held to sanctify any diabolism, avowedly defiant and contemptuous of a world aghast and staggered?

To overlook or minify is to slump into a weakness that is wickedness and to incur the opprobrium of collusion; hardly less revolting because after the fact.

The Ten Commandments, with their infernal penalties, are ten definitions of the Eternal love no less

than of the Eternal right, and so are incorporated in the Christian system, and the Christian religion requires that they be vindicated and honored in the interests of goodness itself.

People misguide themselves with words, unaware of what they imply and equally of what they do not. Our God is a God of mercy, but not of infinite good humor and an unchanging smile.

"Vengeance is mine, I will repay, saith the Lord." Yes, and part of His method of administration is through a code He committed to human hands to safeguard, calling it holy. No gospel can abrogate the moral law or consent to its *laissez faire* administration.

Smile equally upon the innocent and the criminal, and that smile becomes a withering blight in which all morals blacken. Such indiscrimination would be nothing short of a crime—postulate.

Is there a more serious menace this very hour than condonement talk, or anything more unreligious, masquerading as it does under the avowal of principles it either does not understand or to which it is traitorous? "He that would eat with the devil needs a long spoon."

"Woe unto you, scribes and pharisees, hypocrites, for ye neglect the weightier matters of the law, judgment." He who for personal wrong prayed "Father, forgive," said that in the court of human assize to the falsifiers and oppressors.

Ah, if we could assemble the witnesses.

Maidens whose guileless lives have been wantoned into gray years haunted with memories that burn and sear and crush and fester.

Babies defiled in their very conception.

Motherhood made a curse and wifehood more bitter than widowhood.

The company of the deliberately maimed in every member of their unoffending bodies, from the nursling to senile helplessness.

No sanctuary of human life or death unviolated.

Witnesses writhing on crosses, Redemption's own outraged emblem.

The sacrosanct murdered to defeat not enemies, but deeds of mercy and healing.

Innocents smothered in the deep through lust to see them die.

Crimes before which loot and theft and arson, incredible filthiness and hilarious desecration and ruin of treasures become petty.

We do assemble the witnesses, and, moreover, would vest the verdict in their scarred hands rather than in the hands of such as have known no agony, and to whom "forgiveness" is not an achievement through their own anguish but a quasi religious shibboleth as cheaply acquired as dispensed.

We spoke of words. One of the big words of the Bible is "damn." Like the unclassable greatest of all words, "God," it can be profanely used. But it is a great strong final word that is out of place in any profanity even as the name of the Creator is, and should be redeemed from feeble vulgarity. Now is the time and here the call to redeem it. 'Twould be a relief to hear some of our special pleaders for comparative acquittal of the unspeakable Bosch-Caliban voice it with comprehension of its solemn magisterial note as in the New Testament setting. As, for example, when the Master, facing a conspiracy of self-styled supermen whose supercrime was that they "despised others," challenged "How can ye escape the damnation of hell?" Nor did He say "My mistaken brothers," but "Ye vipers, ye serpents, ye children of the devil and hell!"

The German was so super that even in his Kaiser,

the blasphemous plenipotentiary elect of all power, he could not and did not believe this nation would spend its money other than as the materialist astride the Rhine himself would.

America is spending it, together with much besides whose value is not computable to a self-brutalized progeny of deadly egoists. But America must have her price as her co-allies must, and that price as earnest of full pay to humanity insulted, piratized and bathed in bloody sweat, is fathomless damnation for German Kultur in the womb of the blackness of darkness from which it sprang. Which again means penalties befitting the crimes engendered. And over the portals of Germany's incarceration in bonds should appear, "Thou shalt by no means come forth 'til thou hast paid the uttermost farthing."

Not to demand ample restitution for what Germany has done, not in any blinding fit of dehumanizing rage of a maddening conflict, but with scientific cold-blooded calculation, worked out with the utmost precision her boasted mathematical genius could supply, would be to endorse her Kultur, provoke her laughter and encourage her conceit of "might is right," and more serious yet, to break faith with those who died on Flanders field and many another, and with the motherhood not only of the past, but of the future. The way to cure the German is to secure him and keep him so until restitution is accomplished. If he prove incurable, the more unqualified the call for safeguards.

### A Virginia Woman in Italy.

Villa Bagnolo, Appenine, Mugello,

September 13.

Dear Mr. Edmonds:

I have just read an article from your pen in one of the most popular of English papers, the Field. It opened my eyes to the vast resources of the United States of America, and made my heart thrill with pride of country as I read your words and realized all America could do and is doing for all the world in need. I also knew that you were one of the few men whose accurate knowledge of her resources was entirely to be relied upon. I was among English and Italians, I being the only American at this summer place, and it interested them greatly to find that I knew you personally. People are beginning to think very differently of America now.

Since the night I last saw you in Baltimore, long ago, I've lived mostly in Italy, with visits to France, England, Switzerland, etc. Things are very difficult here and in Florence. Although the exchange has gone down, prices are still going up, until I don't know what we will do. It is impossible to get fuel of any kind, and the winters in Florence are more severe than in Virginia, because of the winds from the snow-covered mountains. Flannel is also out of reach, and last winter I suffered terribly. In Florence I am now in an old palace where there is no gas and no electric light, and we cannot even get a little petroleum for lamps. I am reduced to very bad candles, for which I pay 12 cents each, and it takes three a night to see in the great dark rooms. Oil is dear and very difficult to get. Sugar we are given in infinitesimal quantities, once in 10 days. Butter is out of all question, and we have no sweets, only chocolate, which is very poor and dear. Yet, the courage of the people is wonderful. There is a young English officer, who has been here twice, and he has lost his left leg from the hip, and yet he dances, plays tennis and sings a good song. I have seen no American soldiers here, not even in the Red Cross.

The crops in Tuscany are fine, and the farmers are the most independent people, for they are receiving such prices for their products! Yet, they thresh wheat like people did a hundred years ago. Fruit is abundant, but so dear.

Very sincerely yours,  
MARY GRASBY BROCKENBROUGH.

## What the American People Are Driving at Is Unconditional Surrender.

Dallas, Tex., October 22.

### *Editor Manufacturers Record:*

It seems to me that in our discussion of and our thinking about war and peace that we so often lose sight of fundamental principles.

First of all, if the cause of the Allies is not a holy cause and one of righteousness, and if we are not doing God's work, we have no business in the war and should apologize to Germany and get out of it at once. If England and France are not fighting for a cause altogether righteous, we had no business to join with them. But we are agreed that we are engaged in doing God's work and fighting for righteousness. Therefore, war in this case is a holy business and is the highest form of work in which humanity can be engaged.

It seems that the will of God on earth can only be expressed through human instrumentality. God does not stay the hand of the Hun brute when he thrusts his saw-tooth bayonet through the body of the Belgian child, except as he gives power to human beings to do so. Therefore, war, like many other things in life, can be dedicated to a cause most holy or it can be prostituted to a cause utterly base and sinful. So let us keep these fundamental notions in mind in our thinking about war. We will be assailed on every side by the notion that war is so terrible that it should be stopped at the first opportunity.

It is said that the highest law of nature is self-preservation; but this does not apply if we mean by self the material or physical body. If this were so, men by the millions would not go to fight and die, if need be, to preserve a worthy cause. The only man who is fit to live is one who is willing, if need be, to die to preserve principles of righteousness and justice. And he knows that his real self cannot be shot with bullets, burned by fire nor destroyed by poison gns, and that the only self-preservation that will avail is to live for principle.

And again we hear a great deal about forgiving the Hun. The fundamental basis of attaining forgiveness for sins as taught by the churches is repentance and restitution for wrongs done, as far as it is possible. So, even God cannot, or at least will not, forgive the unrepentant Hun; need we worry about it?

Now, we started out to make the world safe for democracy, and that in order to accomplish this we concluded that it was necessary to destroy German militarism. But if we have changed our minds, and only intend to scotch the beast and run him back to his lair, it will be necessary that France, England, Italy, the United States and the other allied nations maintain their present military forces, as we have just reached the point where we can push the Hun back. On the other hand, if we really intend to destroy German militarism, we will have to push the war to a logical and complete finish. That is, to an unconditional surrender. All else is to compromise and to abandon our high principles.

We are not to continue the war in a spirit of revenge or retaliation, nor even punishment as such, but merely to push it to a logical conclusion, and that the essential restitution and reparation may be made.

The Germans themselves have determined their heavy obligations for life and property destroyed, and no man nor government has a right to set aside these obligations to the injured people. It is just a mere matter of common justice and right that they discharge their obligations to their full ability to pay. And certainly the court which passes judgment on the criminal does not humiliate him. He has brought on the humiliation by his own acts, and the punishment is now looked upon as for the reformation of the criminal, and is not done through a spirit of revenge. Germany should be put in the hands of the court and her affairs administered for the benefit of her creditors.

And because Germany has killed women and children in the invaded countries we will not follow their example on German soil. We should not destroy property wantonly, as Germany should be left in condition for maximum production in all lines of commerce, and she should be required to produce values to the fullest extent. But every dollar above a bare subsistence and necessary replacements should go to pay her great obligations for life and property destroyed, together with all court costs incurred in the arrest and trial of the criminal. So, having put our hands to the plow, we should not turn back, but push the war to the only just and logical conclusion—unconditional surrender.

We may be a good deal confused in our discussions

of an armistice and peace terms, but what the American people are driving at is that unconditional surrender is the only terms they can tolerate for an armistice, and we do not want an unconditional surrender that has to be explained. To us it means that Germany must surrender her armies and lay down her arms. After that, the peace can be arranged.

VERNON H. SMITH,

Member Am. Soc. C. E.

## The Terms Which America and the Allies Should Demand.

Tampa, Fla., October 5.

### *Editor Manufacturers Record:*

I herewith enclose check for a year's subscription to the MANUFACTURERS RECORD. I consider inestimable the work being done by you in educating public sentiment to the only kind of peace we should accept from the Huns.

The Central Powers, according to today's dispatches, are clamoring for a peace conference and armistice. I consider this the most crucial period of the war, not as to German arms, for they are beaten, but from a naudlin sentiment that may be allowed to invade the minds of the American people in a spirit of extending a helping hand to a beaten foe.

Any sympathy or leniency shown Germany will, in my mind, receive the same consideration the huntsman got from the snake after bringing it back to life.

Unconditional surrender, full reparation and restoration by Germany of all she has taken and destroyed, the payment by her of all the war has cost the Allies in men and material, as far as it is possible to pay with a money consideration for her crimes, are the only terms we should accept.

G. A. PETTEWAY.

## Stop Negotiations—Stop German Propaganda.

W. M. C. CORNWELL, Editor Bache Review, New York.

During all that period when our armies were successfully fighting back the enemy in the great advance that began on July 18, we heard nothing from the Germans in America. Now a flood of talk from them is sweeping the country. Everywhere they congregate one will hear arguments claiming that Germany has conceded everything and that a peace conference should be granted her. Weak-minded, and even some otherwise intelligent people, are liable to be led away by the specious arguments of these traitorous advocates of mercy. This is most dangerous to the morale of the whole country, and should be met with the sternest disapproval and refusal to discuss the question.

The great ruling thinking majority of the American people are firmly convinced that there is but one right way to end the war. That way is to carry it on until the enemy surrenders unconditionally.

This great body of citizens is deeply disturbed that the German plea for negotiations has received attention and even the encouragement of argumentative reply.

**THEY BELIEVE THE COUNTRY IS INCURRING THE DANGER OF BEING FINALLY DRAWN INEXTRICABLY INTO COUNTENANCING A DISCUSSION AT A PEACE TABLE WHERE GERMANY, THE BLACKEST CRIMINAL IN ALL HISTORY, WILL BE ALLOWED TO INFLUENCE ON EQUAL TERMS THE VERDICT CONCERNING HER OWN CRIMES AND SO ESCAPE JUST PUNISHMENT AND RETRIBUTION.**

The country is deeply stirred that the bare possibility of such a monstrous result is allowed for a moment to exist.

The demand of the people of the United States is that any further discussion whatever with the German Government be ended once for all by the demand, firm and final, for unconditional surrender.

## Anything But Unconditional Surrender Is a Draw.

Atlanta, Ga., October 22.

### *Editor Manufacturers Record:*

Anything but unconditional surrender in this war is a draw, and history will so record it. Any communication at any time whatsoever with the enemy before unconditional surrender smacks of weakness or treason to our boys and our cause. The enemy knows what unconditional surrender means, and if that is not America's ultimatum, the world will doubt our Administration's purpose from start to finish.

W. E. WIMPY.

## Why Germany's Criminal Leaders Should Be Hanged and Its People Re-educated.

Fountain Inn, S. C., October 20, 1918.

### *Editor Manufacturers Record:*

I think you are making a very grave error in attempting to create a sentiment in favor of physical punishment of those responsible for the war, and thus directing attention away from the more urgent need of making another such war impossible.

We are not a blood-letting people. When our sense of justice demands capital punishment, the inevitable reaction finds us led by repentance and sympathy rather than judgment, and mercy constrains us to do less than our duty.

Let us suppose that Germany has surrendered without condition.

If, then, we adjust the claims of oppressed and bound peoples, give France her rightful property and indemnify Belgium, and then proceed to hang those Huns who brought about the war, our people and the civilized people of the world will feel that we have finished well the task assigned us, and will settle back into apathy, leaving Germany to such schemes as she may desire to recoup her losses and prepare for another stroke.

Does anyone suppose that defeat of the Hun will change his nature? Is a whipped Hun less a liar than a combatant Hun? He is treacherous in war. We know now that he was treacherous before the war. By what queer twist of reasoning do we arrive at the conclusion that he will be less treacherous after the war?

And what shall we gain by hanging the Kaiser and his chief accomplices? Are they the only Huns in Germany? Are we to swallow whole the President's assumption that the Kaiser and his people are two distinct breeds, the one a wolf and the others poor lost lambs?

They are as like as peas. Master and man, there is no difference, save that of rank.

This war has demonstrated that it is possible, after all, to indict a whole people. But we cannot hang a whole people.

If we cannot punish all, what profit in punishing a few?

Punishment for crime has as its first object the protection of society, not revenge on the person of the criminal.

With the Kaiser, his six sons and their chief lieutenants hanging in a row, will Germany be less a criminal? Her character is bred in the bone. That we have but recently organized it is no reason why we should jump to the conclusion that its formation is recent.

Germany, with or without her chief criminals, will be a menace while she has strength to be a menace.

I can conceive of but one method by which she may be definitely and effectually shorn of her power for mischief.

Russia, with her old greed and the marvelous fecundity of her peasant women, might have terrorized the world but for one thing. She lacked open ports.

The great nations of history were those that sent men down to the sea in ships.

We must, for the sake of present security and to guarantee the freedom of posterity, deny the Hun access to the seas he has prostituted to the business of organized assassination.

A reconstituted and reorganized Poland must have frontage on the Baltic as far west as the fifteenth parallel, and Belgium must have a strip of territory south of Holland and thence east along the North and Baltic seas to the fifteenth parallel.

If this seems much to give Belgium, who shall say that she deserves less for the agony she has endured?

We cannot hang Germany.

We can confine her.

And if we do our plain duty in this matter, securing Belgium in her new possessions by the might of the allied nations, the menace of the Hun will be forever removed from the horizon of civilization, and never again will one great nation lightly violate the neutrality of a weaker neighbor.

R. R. QUILLIN.

In answer to Mr. Quillen, we think, a great deal will be accomplished by the hanging of the Kaiser and his accomplices. When murderers run riot civilization must protect itself by the death of the murderers. For the same reason, and in order to eliminate from the world the influence of the gang of murderers who have been responsible for these fearful crimes, the murderers should pay the penalty with their lives.

We believe like Mr. Quillen, that the defeat of the Hun will not change his nature. In defeat, the Hun will be just as much a liar as he has been for years. The Kaiser and his crowd and the whole German people are alike guilty, but we cannot hang the whole German nation. We can hang the leaders and punish the others. Otherwise we shall fail to do our duty to God and to mankind.

It will take years of teaching to educate the German race into new ways of thinking, and the first education should be the death of the criminal leaders as an object lesson that "might is no longer a god to be worshipped."

### Will the President Oppose Demand for "Unconditional Surrender?"

Law Offices of Kingsbury & Hendrickson.  
Wayne, Neb., October 24.

#### Editor Manufacturers Record:

Enclosed find check for \$13 subscriptions to MANUFACTURERS RECORD, it being money well spent.

The power of the press is an irresistible force and the power of public opinion is an immovable body. With these two great forces, the greatest known, demanding an unconditional surrender on the part of Germany, will the President oppose. Add to this the wish of 10,000,000 well-trained soldiers, who are ready, able and willing to compel an unconditional surrender, again I ask, will the President oppose?

The surrender of Germany will liberate 200,000,000 peoples. It will bring stability and poise to three continents and a safeguard to future generations against the bestiality of the Hun.

The rape of Belgium, the torture of the Serbians, the crucifixion of the Canadians, the murder of the French women and children will in a small measure be atoned by the surrender of the Germans.

History will record and future generations will take warning that the way of the transgressor is hard by the surrender of Germany.

Above you have the three only known reasons why criminals should be punished, viz., first, impossible to commit the crime again; second, punishment of the criminal; third, example to others.

Allow me to say that my copy of the last MANUFACTURERS RECORD is in such demand that I believe I will have to subscribe for more copies.

I am with you. On to Berlin!

C. H. HENDRICKSON.

### For Unconditional Surrender and Adequate Punishment.

Atlanta, Ga., October 26.

#### Editor Manufacturers Record:

I have been an enthusiastic reader of your publication for more than five years, and have approved of practically all of your policies, more especially those relating to the present war, as all the editorials and other articles evince study, thought and sound judgment. As I contemplate going with the colors soon I want to express my appreciation of the work you are doing and to let you know that I, together with a great number of my acquaintances, are with you in your program of just and adequate punishment (as far as humanly possible) for Germany and the German people, as, in my opinion, the Government and people cannot be separated. The reading of your paper has not made me more anti-German, as I have never had any use for the low-down scoundrels, but it has furnished me with arguments in trying to convince others that it is impossible for the Allies to punish Germany more than it deserves.

Personally, I do not believe that it is humanly possible to conceive of a punishment for the Germans that would be commensurate with their crimes, so the Allies should do all they can to punish them, as best they can, by boycotts, indemnities, humiliations, and the entire German nation should be made slaves until all invaded territories have been restored to an even better and more prosperous condition than they were before the fiends began displaying their total depravity. Of course, it goes without saying that the leaders should be hung. It is not revenge we want, for it is impossible to adequately punish Germany, much less take revenge. My contempt for flabby persons who do not believe in punishment is beyond words to express, for they are either Germans, imbeciles or fools, and should experience the treatment the Germans have inflicted on the people of invaded territory to convince them that there is a difference between right and wrong.

One can allow for differences of opinion in regard to some things, in fact, most things, but certainly not in regard to punishment for Germany, for everyone should know by this time that the Huns of today are the most depraved beings ever created, and that the devil himself would blush to commit crimes the Germans are guilty of. It would be superfluous for me to go into detail of why I think the nation should be punished and what would be an adequate punishment, for there is none, but suffice it to say that one could rest assured of the future if he knew that the punishment was in the hands of such men as yourself.

It would be a calamity to the world if the leniency

advocated by President Wilson for the Germans was supported by the other leaders of the Allies. I have always considered Mr. Wilson one of the greatest men the world has produced, but with all that he is not infallible, and it is a relief to find such papers as yours that do not agree with everything he says, whether right or wrong. I refer particularly to your editorial of October 24, "The American People Still Have the Right to Voice Their Sentiment," and especially those who contribute directly to the winning of the war. So many people act on the theory that one should wait until he sees what President Wilson does or says before expressing his opinion. That is an obviously utterly false theory, for what weight would anyone's opinion have after the matter has been settled, only to condemn the one responsible for the settlement, or commend him, as the case might be? Mr. Wilson has made some serious mistakes and is liable to make others, or at least not carry out the wishes of the people unless they have backbone enough to make those wishes known.

I certainly hope that the next election will send representatives to Congress that will not be dominated by Mr. Wilson, for I do not think any one man in the world is capable of rightly acting for an entire nation without the aid and advice of others. If Congress is going to be controlled by him, as the German assemblies are controlled by the Kaiser, what earthly use is there of going to the expense of having a Congress at all?

The German people and Government cannot be separated in the matter of placing responsibility for crimes committed during the last four years, for if the people had not been willing to commit the crimes there is no earthly power that could have made them do so. They were willingly led on their expedition of crime and destruction, and even if they should by any chance depose the Kaiser, that act certainly would not expiate their crimes.

Yours for unconditional surrender and adequate punishment.

W. E. MCINTOSH.

### Unconditional Surrender and Punishment for Crimes.

Moorehead, Miss., October 23.

#### Editor Manufacturers Record:

I enclose an editorial from the Memphis (Tenn.) Commercial-Appeal that shows about how we feel about it down in this neck of the woods, especially the fifth clause that I underscored. I thought you might enjoy reading it.

W. M. CARTER.

The Editorial from the Commercial-Appeal is as follows:

#### GERMANY'S REPLY A PLEA OF CONFESSION AND AVOIDANCE.

Self enters a plea of confession and avoidance. It is vacillating, nebulous and weak.

If the German fundamental law has been changed so as to give the people full representation and the right of veto, what guarantee can Germany give that so soon as the present difficulty is over these rights will not again be taken away from the people.

The entire Germanic conversation has been a waste of time and a diversion from the main thing.

The terms of the Allies as to surrender of territory, as to indemnity and as to the destruction of the German Empire, as present constituted, should be put in concrete shape, signed by all and published. Then let the fighting continue until Germany is willing to meet these terms and signify by an unconditional surrender.

*The German Empire must be destroyed. The German army must be destroyed. German kultur must be annihilated and the German people must be civilized. Amen.*

Or Mr. Wilson might write this: "Alsace and Lorraine back to France, Schleswig-Holstein back to Denmark, German Poland back to an independent Poland. A seaport on the Baltic for Poland and indemnity to Belgium, indemnity to France and payment for ships illegally destroyed. Occupation of Essen, Hamburg, Berlin and Koenigsberg until the indemnity is paid. This note is approved by Lloyd George, Clemenceau and Orlando. If these terms are acceptable see Foch."

In the meantime let not America think the war is over. All our preparations and work must continue. We must redouble efforts so that 4,000,000 fighting men will be in France by spring.

If they are not needed there they can have the benefit of a fine training in practical Americanism.

The following pamphlets, published by the Manufacturers Record Publishing Co., should be read by every citizen of the United States because they present an unforgettable picture of what German infamy and German plans for world dominion mean to the free nations of the earth. The atrocities and the unscrupulous disregard of all points of honor which actuate Germany show that that nation has sunk into a degree of atheistic barbarism which will utterly destroy all civilization unless Germany be overwhelmingly defeated and made to pay the full cost of the war and unless its leaders be punished with death for their crimes. In Germany's awful crimes we are merely witnessing the fruition of the doctrines preached by Frederick the Great, by Treitschke and Nietzsche, by von Bernhardi and the present Kaiser and many other German leaders.

*The following pamphlets covering all of these great issues should be read by every American and distributed by every lover of humanity to friends and employes:*

### WHAT SHALL BE AMERICA'S ANSWER TO GERMAN PEACE PLEAS?

Including Editorials From Recent Issues of the Manufacturers Record and Rev. Dr. Newell Dwight Hillis' Superb Address:

"The Hour Is Big With Destiny—Only Safe Word Is Unconditional Surrender."

5 cents per copy; 25 or more at 4 cents per copy; 100 or more at 3 cents per copy.

### GERMANY — THE WORLD'S BLACKEST CRIMINAL.

A Wonderful Presentation by Secretary of State Hon. Robert Lansing and Others of the Crimes of Germany, Even to Recount Which Would, Secretary Lansing Says, "Sicken a Tiger."

15 cents per copy; 100 or more at 10 cents when shipped in bulk.

### GERMANY — THE SUPER-FIEND.

A Nation Gone Mad in Its Lust for Power and World Dominion—A Discussion of the Fallacious Doctrine that "Might Makes Right" and "As the State Can Do No Wrong, If the State Orders Crimes Committed, It Ceases to Be Crime."

5 cents per copy; 25 or more at 4 cents per copy; 100 or more at 3 cents per copy.

### GERMANY'S WAR PLANS AND HER ATROCITIES IN BELGIUM AND FRANCE.

By Rev. Newell Dwight Hillis.

5 cents per copy; \$4.00 per 100.

Published by  
MANUFACTURERS RECORD PUBLISHING CO.,  
Baltimore, Md.

A Father Civiliza  
Editor Man  
I thank  
for the "c  
preparation  
Germany's acc  
We want  
after more  
put their a  
the world.  
No peace  
German so  
and after  
the close of  
I have th  
trenches in  
hearts above  
until the Ge  
to disgorge  
anything le

The fear  
Germany h  
interior be  
American p  
fourteen  
arousals to  
lightest y  
of demand  
Unconditio  
there was j  
in them to  
the d  
We say  
100,000,000  
or Allies  
in this mu  
longer lay.  
It was t  
message w  
closed up  
strengthene  
every way  
proof again  
Wilson ma  
concluded  
the Hohenz  
and a  
advice of I  
to armisti  
forces of L  
So we ha  
drive for c  
advanced.  
gave the c  
it revealed  
expressed  
der, which  
the world's

There i  
A Mothe  
Editor Ma  
Your ed  
"sider" is  
a memorin  
countries  
and Berlin.  
I would  
cohorts be  
countries,  
that they  
the terms.

Yours fo  
voice be  
justice.

(Mrs. J

**A Father Who Has Three Sons Fighting for Civilization Demands Unconditional Surrender.**

Decatur, Ala., October 21.

*Editor Manufacturers Record:*

I thank you for your earnest and insistent demand for the "unconditional surrender of Germany, full preparation and impartial justice to the victims of Germany's accursed war."

We want no parley or armistice with a people who, after more than forty years of preparation, deliberately put their armies in motion to subjugate and plunder the world.

No peace can be permanent that is not dictated on German soil by the Allied commanders, in the manner and after the precedent established at Versailles at the close of the Franco-Prussia war.

I have three sons in the service (two of them in the trenches in France), whose return would gladden our hearts above all things, but I do not want them back until the German has been thoroughly beaten, compelled to disgorge, disarmed and forever rendered harmless. Anything less will be a victory for the Hun.

Wm. E. SKEGGS.

**Only One Way Out—Berlin.**

*[Northwestern Christian Advocate.]*

The fear engendered by the President's first note to Germany has been allayed by his second reply. In the interval between these two historic documents, the American public, sensible to the danger lurking in the "fourteen points," which the enemy seemed only too anxious to accept, raised unmistakable protest against slightest yielding. This cry amounted to a vast flood of demand that expressed itself in the two words, **Unconditional Surrender**. The public saw in the President's "points" a chance to play hide and seek; there was just enough indefiniteness lurking among and between them to suggest endless parleying, an opportunity to give and take, with the possibility of Germany emerging from the diplomatic battle in a fair state of preservation.

We say the President heard this cry, not only from 30,000,000 Americans, but he caught the echo from our Allies across the sea. He must have realized that this multiplicity of words composing his first note singer lay.

It was therefore with grave concern that his second message was awaited. In it he caught himself. He closed up all loopholes, tightened all loose joints, strengthened the strands, sharpened the barbs and in every way put up a defense that seemed altogether proof against German attack. In that note President Wilson made it perfectly plain that no peace will be concluded with Germany until she has made an end of the Hohenzollern autocratic rule; conditions of evacuation and armistice must be left to the judgment and advice of Foch and Haig and Pershing and Diaz; and an armistice can be considered so long as the armed forces of Germany, on land and sea, "continue the legal and inhumane practices which they persist in."

So we have been saved a possible humiliation, and the drive for complete and crushing victory is again well advanced. The incident was, after all, profitable. It gave the country a chance to say what it wanted, and it revealed the fine unanimity of spirit and demand as expressed in those two words, **Unconditional Surrender**, which shall continue to stand in the forefront as the world's victory slogan.

**There is only one way out—Berlin.**

**A Mother's Call for Unconditional Surrender.**

St. Augustine, Fla., October 22.

*Editor Manufacturers Record:*

Your editorial "On to Berlin and Unconditional Surrender" is glorious. Can you not start or inaugurate a memorial to be signed by all the people of the Allied countries that there shall be no peace until Germany and Berlin are made to suffer.

I would suggest that the damnable Kaiser and his cohorts be caged and sent chained through all the Allied countries, and if there was anything left of them after that they be further punished. But let Belgium dictate the terms. We do not want any more notes.

Yours for the good of the cause, and may your great voice be heard clearer and louder for the cause of justice.

Faithfully yours,

SARA B. UNDERWOOD.

(Mrs. A. W.)

**U. S. Spells Unconditional Surrender.**

*[Northwestern Christian Advocate.]*

We have reached the most critical stage of the great war. Many a patient has been lost at the convalescent stage. The world contest has about reached that period. Germany now sees she cannot win the war. She is not defeated, but is in process of defeat. Were the points of contest checked up to date, Germany would probably score higher than the Allies; but at the first touch of the whip she cries "Enough!"

What the Allies started out to do remain unfulfilled—the breaking of the spirit of Germany and her reduction to a condition of humility and repentance. Not one note of defeat has been sounded by the Kaiser. He still speaks grandiloquently of his loyal legions. They remain unbroken. Germany's fighting force remains intact. Militarism has not yet been disqualified in Germany.

Though an acceptance of the President's 14 principles may severely embarrass Germany, there is one thing she will have left—a fighting machine, an army unbroken, a navy untouched. The futility of physical power has not been quite proven. If the 14 principles can be boiled down into two words, unconditional surrender, well and good; if in the multiplicity of words they fall short of that result, the greatest moral victory of the ages fails of full fruition.

This is the danger. We heartily agree with Colonel Roosevelt that "peace problems should be discussed only with our Allies." If once an armistice is declared, if the boys at the front stack arms and for the time relax their strenuous effort, if the spirit for complete victory created over here through months of arduous education be dissipated, a resumption of hostilities in case Germany refuses to comply with every demand would be a most difficult accomplishment. This is hardly the time to bank the fires in the furnace.

Many a sinner kneeling at the old-fashioned Methodist altar became the solicitous regard of the preacher. The expected peace delayed its coming. Finally the preacher, after questioning, would say: "Brother, what you need is more conviction. Stay at the altar a while longer. When your conviction becomes pungent, when you give up all, the light will break." That is the situation with Germany. Her conscience has not suffered sufficiently. Her conviction is not deep enough. In modern parlance, to give up all means unconditional surrender. We believe that is the unanimous verdict of not only the American people, but all the nations concerned.

**Descriptive of Germany.**

*[Columbia (Tenn.) Daily Herald.]*

If ever in conversation about Germany your vocabulary seems limited and you are unable to think of a word or phrase that will properly describe the Huns, here is a list used by Richard H. Edmonds, editor of the MANUFACTURERS RECORD, which might fit:

Assassins; murderers; rapists; manglers of children; bestial brutes whose crimes "sicken a tiger;" robbers who have looted homes and nations alike; destroyers of cathedrals; mutilators; bandits; criminals whose hands run red with human blood; despoilers; plunderers; destroyers of womanhood and civilization alike; pillagers; freebooters; looters; atheistic barbarians who would blot out Christianity; hypocrites; liars; murderers on the high seas; sharks; gloators over their own infamies; makers of holidays and medals to celebrate the murder of 1000 women and children and non-combatants; instigators of every vile devil-controlled mind and soul in neutral countries to poison the mind as they poison the wells; pirates; violators of every agreement as "scraps of paper," whose spoken or written contract is as worthless as a box of matches in hell; would-be looters and rulers who cut down fruit trees with the same ruthlessness that they poison wells; crucifiers of prisoners; bombers of hospitals.

The editorial in which these words and phrases were used by Mr. Edmonds concluded with the following question that contains a few more fitting expressions that may be useful at this time:

"And shall we talk peace with such scoundrels, whose crimes, whose turpitude, whose moral depravity and inherent vileness has made them the mental and moral prostitutes of all ages and the willing murderers of millions of men, women and children?"

We leave you to answer the question in your own words.

**Texas Says "Parley Not, But on to Berlin!"**

Fort Worth, Tex., October 23.

*Editor Manufacturers Record:*

With supreme satisfaction and hearty accord I have read the sentiment expressed in your last two issues. You voice thereby the sentiment to a man of the people of this clime.

"Parley not, but on to Berlin!" is the cry of our people in this part of the country. The acts of the Texas and Oklahoma troops in this month is the real answer of the people in this section. If there are not enough men up to 46 to win and win right, then there are thousands of others down here who are ready, anxious and willing to go.

We punish with death devils down here who rape and murder women, and we cannot understand why a nation of mayhemists, defilers of churches, robbers, looters, thieves, liars, murderers and rapists on a wholesale scale should escape the just and condign punishment they so richly deserve.

Let peace, sweet peace, come only when these devils are whipped from their lairs and punished as their acts deserve, but no peace NOR TALK OF PEACE TO COME TILL THIS IS DONE.

Dr. Hillis strikes the exact sentiment and heart's desire of every man and woman whom we know. Even mothers' and wives who are paying the supreme sacrifice approve his every utterance.

On to Berlin, and leave nothing standing from the Rhine to that accursed place, unless they make an UNCONDITIONAL SURRENDER.

The men on the ground conducting this war know how to end it; let them do it their way, and then only will justice be done this horrified world.

H. D. PAYNE.

**Thinks Death Penalty Entirely Too Merciful for Kaiser.**

Middletown, Conn., October 27.

*Editor Manufacturers Record:*

In reading one of the numerous excellent essays relating to the punishment that should be meted out to the greatest criminal the world ever knew, I am led to wonder at the strain of mercy which apparently you show in calling only for the death penalty to be dealt to the chief criminal, the Kaiser, which at most is but a momentary punishment.

In my judgment only such a punishment commensurate with his crimes can be meted out to him as may be most prolonged, and that he should, if it were possible, be made to live on forever, like the mythical Wandering Jew, that he might have the torture of forever having before him the agony caused by his manifold crimes.

Thomas Moore must have had in mind some such criminal when he wrote of the fate to which he would send the traitor of the Fire Worshippers, in that the ever having before him the agony caused by his maniacal habitation, where—life's unblest cup for him, should be drugged with treachery to thy brim. With hopes that but allure to fly, with joys that vanish while he sips; Like Dead Sea fruits that tempt the eyes, then turn to ashes on the lips. His country's curse; His children's shame; Outcast from virtue, peace and fame. May he at last with lips of flame on the parched desert thirsting die. While lakes that shine in mockery nigh are fading off, untouched, untasted; like the once glorious hopes he blasted; And when from earth his spirit flies, Just Prophet, let the damn'd one dwell; full in the sight of paradise, beholding Heaven, but feeling Hell."

Yours for unconditional surrender in Berlin,

STEPHEN F. SHERMAN.

**The Views of a Justice of Supreme Court of Maryland.**

Chestertown, Md., October 21.

*Editor Manufacturers Record:*

The demand for unconditional surrender of the German armies, and of the German Government, to be followed by just indemnities to the Allied nations and reparation for the crimes perpetrated upon innocent men, women and children is the only demand which expresses the true measure of justice or which can satisfy the American people, the Congress of the United States and the President of the republic.

I believe that your paper has rendered invaluable service to the country in keeping steadily and fearlessly before it the principles upon which alone a just and lasting peace can be concluded. JAMES A. PEARCE.

### Why Germany Wants Peace.

By IRA M. PRICE in *The Standard*, one of the leading religious papers of Chicago.

Germany had a definite, well-planned scheme of her first dash for world supremacy. She has now already captured and secured control of more than four-fifths of the territory and peoples included in that first program.

In 1895 and 1911 her aims were published almost in detail. They included in the west the seizure and absorption of Holland, Belgium, Luxembourg, North France to a line drawn from the mouth of the Somme River southeast to Belfort on the border of southern Alsace near Switzerland, and all of German-speaking Switzerland; on the southeast, Austria-Hungary and the Balkans entire; on the east, Russian Poland, the provinces of Courland, Esthonia, Livonia and the three Russian principalities of Kovno, Vilna and Grodno. The total population of these countries outside of the German Empire is about 116,000,000. Add to these Turkey, with her 20,000,000, over whom Germany today has complete military control, and we have 136,000,000. To these add the 68,000,000 of Germany, and we have the immense total of 204,000,000 of human beings. By the reckoning of Cheradame ("The Pan-German Plot Unmasked," pp. 13 ff.) 77,000,000 are Germans and 127,000,000 are non-Germans.

Of this stupendous scheme of conquest Germany now holds and controls Belgium, North France—just a little less than she planned—Luxembourg, Austria-Hungary, her ally, and practically all the Balkans except Greece and Bulgaria. In Russia she secured nearly twice the territory originally marked out, including Finland, Ukraine and several Black Sea ports. Berlin gives her orders to all her allies and absolutely controls their armies. Even the Bolsheviks of Russia are at the command of the general staff on Koenigplatz in Berlin.

The so-called peace treaty signed at Brest-Litovsk was "made in Germany." Its purpose apparently was to break up all Russian opposition, to weaken the Allies and to allow the German octopus to seize all the territory her tentacles could reach. She has already reached far into European and Asiatic Russia, and regards the Brest-Litovsk treaty merely as a "scrap of paper."

Germany's "hint" for a peace conference, through her protege, Austria-Hungary, is not made primarily because of lack of man-power, nor of economical distress, nor of exhaustion of resources, nor of acknowledgment of defeat, though all these may be crowding the issue to the front. But her supreme aim now is to hold what she has already conquered and consolidate it under a peace compact with the Allies, which she herself will regard merely as an armistice. If she could secure by a peace treaty all she now holds and controls on the southeast and east front she could well afford to withdraw her armies from Belgium, France and Luxembourg, and even for the present give back to France Alsace-Lorraine, wrested from her in 1871.

Such a move on the part of Germany might seem to some persons, even to some officials, as a magnanimous concession. But wait. See what that means. Germany now has under her thumb all Austria-Hungary, Serbia, Montenegro, Roumania, Turkey and an unmeasured amount of Russian territory and people. Not less than 200,000,000, or twice the population of the U. S. A., will be under her sway. It will take her 10 to 20 years thoroughly to organize these immense areas and populations into one Prussian empire. Then what will happen? The Hohenzollern dynasty wants no better opportunity to prepare for the realization of its great world conquest. Assuming that it is successful in amalgamating these peoples, in 20 years it will easily produce an army of 25,000,000 of men. These hosts of thoroughly drilled troops would be equipped with the most effective instruments and elements of destruction in all branches of service on and under water, on land and in the air, that the experiences of the present war and scientific knowledge can devise or invent. The armies of fighting men would be so overwhelming in numbers at the start that nothing would stop them; even as nothing, not even killing devices, can stop the advance of armies of grasshoppers on the Western plains.

With what ease in such a case could she recapture all the territory in the west which she apparently so willingly would now give as a concession to gain peace. Not only would she retake this, but she could push her millions of troops into every country and land and make them her subjects and slaves.

Either this entire globe would be her prize, her

plunder, her possessions, within a short time or every civilized nation on earth would be compelled henceforth, by the menace of the new armies being developed under Prussian rule, to make its land an armed camp, a military machine of the most effective kind, preparatory to the next war. And that war Germany will provoke when "the day" arrives, just as truly and as inevitably as she precipitated this first dash for a specific goal for supremacy from Hamburg to the Persian Gulf.

Is this a vision or a dream? When Germany's world plans were published in 1895 and in 1911 the statement of the allied countries regarded them as the products of the imaginations of enthusiastic Pan-Germans. They were not taken seriously in any allied country. Here and there individuals, like Lord Roberts in England and Cheradame in France, saw the potential storm, though no larger than a man's hand. But their alarms were practically unheeded and the peace-loving nations could not even suspect that such a daring scheme would be launched on the world. When Germany was ready she decreed "the day" and made the first dash—planned for more than a score of years—to secure her first objectives before her foes could mobilize their practically unprepared armies (except France). The results we have all seen.

Now, to consider a conference for peace on any terms short of those laid down by President Wilson and approved by the Allies would be a crime against all the world for all the future. To accept a German peace now would wipe out the tremendous sacrifice of men, money and material already made during the last four years and allow Prussianism, with all its policies of militarism, of lawlessness and of tyranny, to organize another and more awful scheme of conquest to be put into operation in the next generation.

The smashing of the Prussian military system, with all its political affinities, is the only safe and sure prerequisite to the consideration of any discussion of peace terms.

**There should be such a series of victories on all the fronts and in Germany itself as shall wholly wipe out Prussianism and its leaders and free the German people themselves from the tyranny that has defrauded them of their freedom, their liberty, their property and their sons. Until that end has been reached every "peace offensive" from the Central Powers or their friends should be unhesitatingly repulsed.**

### A Peace That Will Be Satisfactory to America.

[The Hastings (Fla.) Herald.]

Editor Richard H. Edmonds of the MANUFACTURERS RECORD has summarized the terms upon which peace should be granted to the Central Powers by the Allies.

Believing his summary will be approved by every true American, we give it herewith:

"Unconditional surrender of armies and navies.

"The death penalty inflicted upon the Kaiser and every male member of the Hohenzollern and Hapsburg families who have been parties to this war, and every military and political leader responsible for bringing on this world crime.

"Full payment in ships or money for every ship sunk by the German submarines.

"Restoration in money or materials of every product, whether of art, or machinery, or foodstuffs, or raw material, or jewelry, or cars, or locomotives, or securities, or money, of which Germany has looted other countries.

"A financial indemnity to the family of every soldier who has been murdered or permanently invalided in the armies of America and our Allies, and a similar pension or payment to every man and woman from the overrun countries who have been enslaved by Germany and made to work on its farms or in its factories.

"The repudiation or confiscation of every dollar of bonded indebtedness of every kind outstanding against Germany, Austria, Turkey and Bulgaria and held by any of the citizens of these countries, the total amount of these bonds to be used towards the payment of the cost of the war to the Allies. To this should be added an additional indemnity sufficient to cover all the expenditures made in America and our Allies in carrying on the war.

"Turkey forever banished from Europe.

"Any suggestion of 'neurotic sympathy' for such unspeakable criminals would show a flabbiness of moral strength, a weakness of moral backbone, which for centuries to come would lessen the moral standard of all the world."

### Must Solidly Stand for Full Reparation and Punishment—Then Great After-War Problems Will Come Up.

Stuart, Fla., October 21.

*Editor Manufacturers Record:*

I have received a reprint of editorials of the MANUFACTURERS RECORD, and the Lilly Company request that I write you if I am pleased with the reprinting of the articles. This seems to imply that I might not be pleased, and seems like a joke worthy of Mark Twain at his best.

Had I been asked four years ago what one of all our American periodicals would most appeal to me, I would never even have thought of the MANUFACTURERS RECORD. I am not a manufacturer, nor even a businessman, and the MANUFACTURERS RECORD is a specialty magazine. As a periodical striving from the outbreak of the war, surely, strenuously and with foresight, to stimulate patriotism and urge preparedness for our safety, and in wise, unselfish, persistent effort to awaken our people to the great danger menacing our nation, and to speed up our Government since we entered the war, the MANUFACTURERS RECORD stands among other periodicals as the great Theodore Roosevelt stands among other individual good, patriotic Americans—not merely "head and shoulders," but clear to the hips above them. A greater compliment is impossible, but you deserve this for the honorable part you have taken in the war.

The horrible German power and people seem to be breaking down. Just how bad conditions are in the army and among their fiendish people we do not know, nor do we know just how strong General Foch is to continue his glorious victory at this unfavorable season, but whether a collapse may come any day now, or whether we must fight on for another year, victory for us is certain.

Another thought impresses me strongly: To those of us who are not actively engaged in manufacturing it might seem now that our interest in the MANUFACTURERS RECORD would wane, but this is far from the truth.

From him who has done much one may safely hope for more. You have been in from the first, and are not finishing a great fight, but there remain two great fights of equal interest to your admirers. The first is to make the sentiment and determination of our people such as will compel our peace commissioners to stand solidly with France and England to get full reparation for all ravished peoples, and impose adequate punishment on the chief of all criminals, high and low. Neglect in doing this would bring the same disgrace on a nation as scale to civilized nations as is brought on a small scale to a court when a particularly vile criminal is freed by official corruption or mauldin sympathy.

And when peace is established we will face a struggle of a different nature, but as great as any we have been through. Tremendous opportunities for trade will open in the new world. It will be up to us to play a greater part than any other nation, even England. But the wage problem due to the war, the money problem due to special taxation of the industrial leaders, the socialistic experiments we have made as war measures and all the great tasks of readjustment to peace conditions will tax the best minds of the nation. In these coming struggles our interest in the MANUFACTURERS RECORD will increase rather than grow less.

Sincerely yours,

O. P. MAXSON, M.D.

### For "Eternal Justice Sake" We Fight.

The Warren Record.

Warrenton, N. C., October 14.

*Editor Manufacturers Record:*

We feel that it would be a blow to the patriotism of Warren and Vance and Halifax and the Halifax Times if the vibrant patriotism and progressive Americanism of the MANUFACTURERS RECORD was not made available to our readers through the republication courtesy allowed by your publication.

Accept my sincere good wishes in the great work which you are doing—work which is lasting and for eternal justice's sake. Enter us at once upon the mailing list and enable us to further distribute and personally enjoy the articles from the pen of Mr. Edmonds and the red-blooded patriotism of every issue.

W. BRODIE JONES, Editor.

### Fear that Pacifist Leanings Would Bring About Peace Without Punishment.

Prospect House,  
Niagara Falls, N. Y., October 25.

*Editor Manufacturers Record:*

Accept my hearty congratulations for your vigorous and manly stand against an unwise and premature peace suggested by a number of daily editors and public men. I wish you would keep up the good work and arouse the public sentiment against such hasty and criminal peace action.

I am enclosing a copy of a letter which I wrote to Hon. William McAdoo, Secretary of Treasury, in reference to the Fourth Liberty Loan, in which I know you will be interested.

JOHN R. MARDICK.

Mr. Mardick's letter is as follows:

Prospect House,  
Niagara Falls, N. Y., October 11.

Hon. William G. McAdoo,

Secretary of the Treasury.

Washington, D. C.:

Dear Sir—Re: Fourth Liberty Loan. One reason for the lack of interest of the public in the fourth loan is the belief of a great number that the present Administration is pacifist at heart and that it would not lose the first opportunity to conclude a premature peace without just reparation and condign punishment for the unspeakable crimes committed by Germany and her allies against humanity. The people think that now that blood is shed and millions have sacrificed their lives for upholding honor and decency against the assassins and ravagers of Belgium, France, Serbia and Armenia, they should not go scot-free, without bringing the arch-conspirators and plotters to the gallows according to common law.

There is nothing in the President's messages or proclamations to assure the public about reparation and proper punishment of the guilty individuals. On the other hand, there is a tendency to let bygones be bygones and a readiness to shake hands with the nefarious assassins and sit at the same table as of old. During these periods of peace parleys and note writing, unless the public is otherwise informed by vigorous and manly stand by the present Administration, the same slackness about the fourth loan will continue and perhaps it may prove to be altogether a failure.

The public opinion all over the world is intensely aroused by the crimes and depredations of the Germans and Turks. Hence, with anything short of complete destruction of the Prussian armies and intriguers of these countries, there may be great political upheavals and lamentable acts of personal vengeance all over the world as soon as the soldiers return from the battle fronts.

I hope that the statesmen will be wise enough to see the undercurrent of public feeling and act accordingly.

Respectfully yours,

JOHN R. MARDICK.

### Unconditional Surrender Demanded by a Civil War Veteran.

New York City, October 23.

*Editor Manufacturers Record:*

I was certainly very much pleased to read your message to President Wilson as published in the New York Sun, and I want to congratulate you on the spirit of your forcible argument.

I hope you will keep on pounding the German hordes and fight for unconditional surrender, and nothing else. Let us fight those brutal demons to the end. Keep up the battle in the future as you have in the past. Give the German autocrats hell for all time to come.

I hope Mr. Wilson will not write any more notes to the scoundrels who have brought such suffering and misery on the whole world.

If the articles published in your valuable paper could only be read by all our people and the peoples of Europe there would be a different thought by all. Please keep up your work; fire shot and shell in the ranks of the pacifists.

Good luck to you, and more of it; hit the murderous devils right between the eyes.

I had the honor to serve with General Grant during the Civil War, and I hope, and hope hard, that we never will stop this brutal war till unconditional surrender is accomplished. Speak for unconditional surrender as General Grant did. Then, and not till then, will the world have a lasting peace.

W. R. WHITNEY.

### Not Very Friendly.

[Anniston (Ala.) Star.]

Judging from a catalogue of crimes he has compiled against them, one might be left to infer that Editor Richard H. Edmonds of the Baltimore MANUFACTURERS RECORD is not on very friendly terms with the Kaiser and his subjects. "To grant Germany and its allies peace would be to welcome back to civilization without punishment nations which," he says, "can be truthfully characterized as composed of liars, sharks, pirates, assassins, murderers, rapists, mutilators, bandits, despoilers, plunderers, pillagers, freebooters; looters, hypocrites and manglers of children."

Nor is that all. One word is not enough, in the opinion of Mr. Edmonds, to describe the depravity to which the latter-day Huns have sunk; so he proceeds further to speak of them as—

"Destroyers of cathedrals; bestial brutes whose crimes 'sicken a tiger'; robbers who have looted homes and nations alike; criminals whose hands run red with human blood; destroyers of womanhood and civilization alike; atheistic barbarians who would blot out Christianity; murderers on the high seas; glosters over their own infamies; crucifiers of prisoners and bombers of Red Cross hospitals; makers of holidays to celebrate the murder of 1000 women and children and non-combatants; instigators of every vile devil-controlled mind and soul in neutral countries to poison the mind as they poison the wells; violators of every agreement as 'scraps of paper,' whose spoken or written contract is as worthless as a box of matches in hell; would-be world looters who cut down fruit trees with the same ruthlessness that they poison wells," etc.

"And shall we make peace with such scoundrels, whose crimes, whose turpitude, whose moral depravity and inherent vileness has made them the mental and moral prostitutes of all ages, and the willing murderers of millions of men, women and children?" he asks.

"May God forbid!" says Mr. Edmonds, in answering his own question, and the Anniston Star is rather disposed to agree with him.

### Justice Would Bring Full Punishment to Germany, Though Some Flabby Minds Try to Make Justice Seem Vengeance.

Millburn, N. J., October 24.

*Editor Manufacturers Record:*

It goes without saying that a righteous and just peace, if one can be devised, would be the best thing that could happen to the whole world, including Germany (meaning the nation). At the same time, such a peace is the last thing that Germany and a good many people outside of Germany, I fear, desire. In such a peace reparation and restitution will be carried as far as is humanly possible, of course, but as for revenge—well, we have it on high authority, none other than the Christ you so often quote, that we should not avenge ourselves, that "vengeance is mine, saith the Lord, I will repay."

"Would it not be well to show that ours is not the German spirit, by sticking to justice and talking less of vengeance? Is it pro-German to suggest it?"

STEPHEN BELL.

We have never seen anyone suggesting vengeance, but everybody who is honest-hearted demands *justice*, and justice means full measure of punishment to criminals. Anyone who tries to indicate otherwise is coming dangerously near to doing what Germany desires, and that is to create the impression that justice would be vengeance. Mr. Bell does not seem to be very well posted on Biblical quotations.

### Germans Pray, Prey, Promise and Prevaricate. In Other Words, Are Hypocritical Thieves and Liars.

Sabine Tram Co.,

Deweyville, Tex., October 19.

*Editor Manufacturers Record:*

Please accept thanks from my friends and myself for the copy of the MANUFACTURERS RECORD reprint of October 10. We are with you, men, women and children, in your views on Hunnish Hunnism, and we believe that your paper is the greatest exponent of "American Americanism" extant, and will be referred to as such as long as "America" breeds Americans.

No, we do not believe the "United States" went into this war to negotiate peace. On the contrary, she went into it to make peace, and has sent about 2,000,000 peacemakers to France for that purpose, and will send as many more as may be needed.

I can see through the Hun's peace (?) move as

plain as the man who made it. While I admit they want "peace," they don't want an "Allies peace." Their great aim is to keep praying, preying, promising and prevaricating with the hope of lulling the Allies into relaxing their vigilance, then, presto, one big massacre!

I know the Hun. I spent five months as a volunteer in the French army under Colonel Gordon in '70 and '71, and I have also spent eight months in German ships. The Hun believes everybody else is just like him except in one thing; he thinks he is smarter than anyone else, but believes that they are just as crooked as he is. I never knew one to be honest unless he was forced to be. I never knew one to tell the truth unless he was compelled to, and I never saw one fight unless he was sure he had the advantage. I know the Hun. The egotistical idiot believes that he can inveigle the Allies into separate peace—watch him try Italy.

I am getting pretty well up in years, but I sure hope I live long enough to see the whole damn Potsdam gang hung—that's all we need, a "g" on the end of Hun.

CAPT. D. G. PRICE,  
Veteran Civil and Spanish Wars.

## Secretary of State Lansing On Germany

In describing Germany in a recent address, Secretary Lansing, who has had abundant opportunity to study German methods, said:

"Americans, even among those intellectually equipped, have but vague ideas of the perverted mental attitude which made Prussianism possible, and of the reason why a compromise founded on the Prussian conception of international rights must not even be considered."

"I shall not attempt to enter upon a recital of the horrible brutalities perpetrated by the German armies in the prosecution of the war. They have been too often told to require repetition. It would be the needless reading of a catalog of black deeds of cruelty which would sicken a tiger by a nation which claims not only to be moral and possessed of humane sentiments, but to be actually commissioned by the Supreme Being to carry out His will."

"German diplomacy and intrigue, as now practiced, must be proclaimed an international crime, and suppressed forever. The philosophy of the 'superman' and of world mastery must die discredited. The evil influences which have so long poisoned the minds of the German people must lose their potency."

Secretary Lansing's full address should just now be read by every man and woman in America. It will be found in a pamphlet published under the title:

### "Germany— The World's Blackest Criminal"

15 Cents Per Copy  
100 or More, 10 Cents Per Copy

Published by  
MANUFACTURERS RECORD PUBLISHING CO.  
Baltimore, Md.

# FIFTY YEARS OF PROGRESS IN THE LEATHER BELTING BUSINESS

**From a Three-Man Factory to a World-Famed Enterprise.**

## FACTORS IN EVOLUTION OF "DUXBAK" BELTING.

**The Charles A. Schieren Company, Its Growth and Continuous Success—A Broad Policy Closely Adhered To—Quality the Cornerstone of Its Prosperity—Its Dixie Tannery and Its Products—Its World-Wide Distribution of Its Belting—Its Place in War Work—Its Service to Trade and Customers.**

THE history of the tanning industry and leather trades in New York is interesting because of the greatness of its development and the constancy with which for 185 years it has been centered in the locality still known by its original characterization as "the Swamp."

When the Dutch first settled on the Island of Manhattan they located their city of New Amsterdam in the lower end of the island, and soon started such industries as seemed appropriate to the resources and conditions of the island. The chief industry was the buying and shipping of furs and skins of various kinds.

The trade of the tanner was one of the first introduced on the island, and the tanners located on Broad street until the growth of population around the tanneries led to a decree from Governor Stuyvesant and his Council banishing the industry beyond the city wall (Wall street) to Maiden Lane, near the East River. There it remained till, under the British Colonial management, this region, too, became encroached upon by residences and the authorities showed a desire to push the industry still further afield.

### Genesis of "The Swamp."

The chief necessity for a favorable locality for tanning upon the best methods was and is an ample supply of oak bark, the indispensable material for the manufacture of the best quality of leather. In 1734 Jacobus Roosevelt was looking about for an available site for tanning. North of the city, and not far east from the Commons, was a large body of marshy ground covered by great and tangled briar patches. But all around was a considerable forest of oak trees with a supply of bark which was of a quality suitable to the manufacture of leather. He bought the tract, selected a site for his own tannery, laid the plot out into 50 generous lots, and sold them, as demand developed, to other tanners. The tanning industry was centered on this tract and flourished for a long time until the bark was used up, and the industry was banished from "the Swamp." But though the tanneries were removed, the tanners stayed, and the

other branches of leather activity remained, many long of national and even international fame making their homes there.

### A Half Century of Schieren Effort.

Fifty years of progress, culminating in unquestioned leadership of the important branch of industry in which it is engaged, is the record of the Charles A. Schieren Company, manufacturers of leather belting.

Its present eminence is due to the evolution of a settled purpose on the part of the founder to earn success by deserving it, to make the best belt it was possible to make, and in that way and by reasonable prices and fair treatment to satisfy every customer. It was

the man behind the enterprise. It began in small quarters at 40 Gold street, and remained there until 1881, since which time it has been at Cliff and Ferry streets, and finally built the present large and imposing building at that intersection for use as offices, salesrooms and factory, a fitting home for what has grown to be the foremost enterprise in the leather belting industry, famed for its product of highest grade and for the world-wide scope of its business.

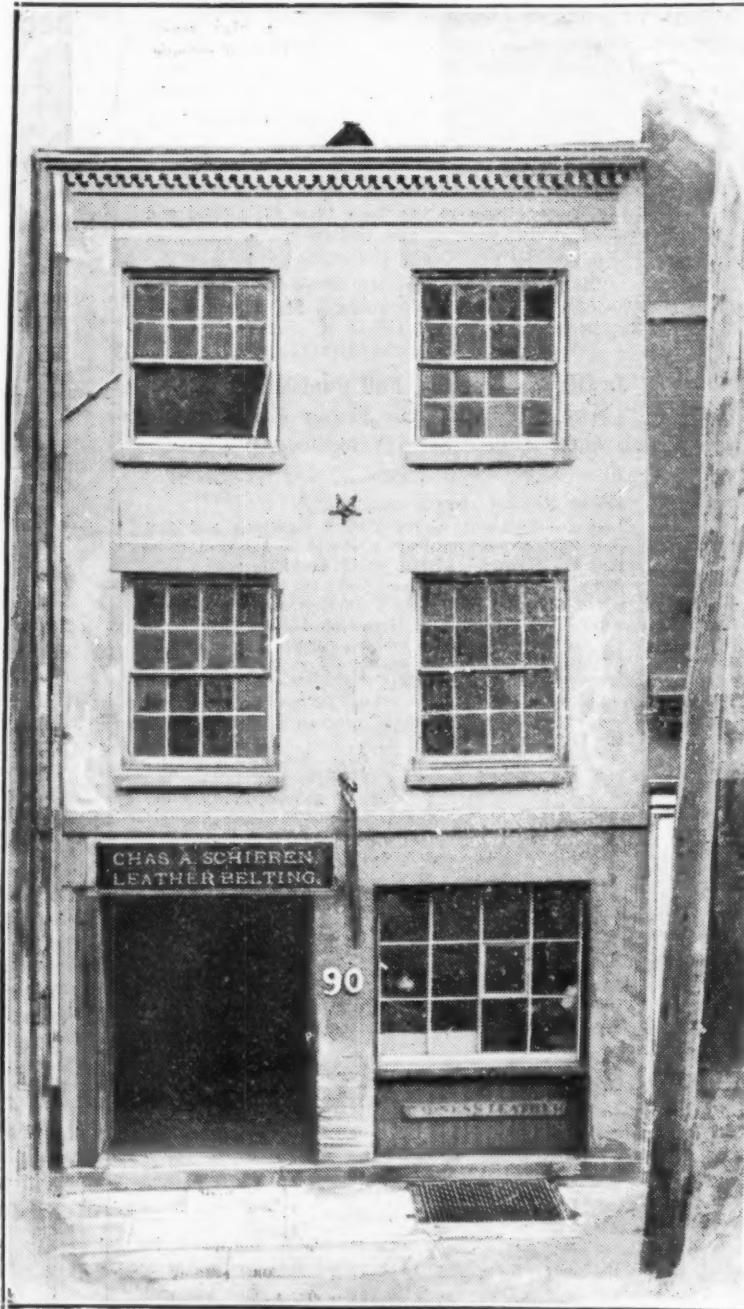
At the base of this development there has been, on the part of the founder, and his sons, who now conduct the enterprise, an intelligent realization that the driving belt has a function of the highest importance

in the success and efficiency of a manufacturing plant. The regularity and speed of operation of the plant are in exact ratio to the faithfulness or failure of the belt to perform its function. Therefore, the serious and ceaseless effort of Charles Adolph Schieren, who founded the business, and his sons, who have succeeded him, to improve the belt to a degree of durability and reliability never before attained, has added most materially to the accomplished horsepower of manufacturing plants all over the world.

### Founding the Dixie Tannery.

To provide itself with the resources and equipment required to secure the highest development of driving-belt usefulness the Schieren Company sought out a locality where it could secure the largest and most continuous supply of oak bark to enable it to use the old-fashioned, long-time pure oak-bark tannage, which is still superior to all other methods of tanning leather for belting. The locality was found at Bristol, Tennessee, in the Holston Valley, 1800 feet above sea level, surrounded by the Holston Mountains. Here the Schieren Company established, in 1893, the Dixie Tannery, a plant which has grown and developed in size, capacity and equipment to keep up with a demand that grows year by year for the superior product of the Schieren factory. The bark of each variety of oak has an especial adaptation to some particular grade of leather, but for belting none other equals that of the rock oak, of which the chief habitat is found in the vast forests of the Appalachian chain of mountains on the boundary line of Tennessee and Virginia and southward into North Carolina. The Dixie Tannery is central to this extensive region of bark supply, the bringing in of which employs numberless carts, which come in endless procession to the tannery in early spring.

a small business when it began, but the founder, Charles A. Schieren, was a man of high ideals and strong personality, who never swerved from his programme of probity and efficiency. So that, although he began the business in 1868 with only two men to help him, his success was forecast by the character of



THE OLD STORE, 90 GOLD STREET, 1868.

laden with rich oak bark which has been stripped from the trees by hardy mountaineers, and which is dried and seasoned for the use of the tannery during the cutting year. To the tannery from other directions come trains of freight cars loaded with hides from the slaughter-houses of Kansas City and Chicago.

## MANUFACTURERS RECORD.

**The Tanning of Belt Leather.**

The processes of cleansing, liming, "bating" (to remove the lime), and then the various tanning processes, consume 120 days to bring it to the condition of leather fit to use as the raw material for belting.

Taken from the vats, the hides are washed to remove every particle of tan bark and then dried in a darkened loft with very little heat, after having been oiled on the grain side. Each hide is then cut into widths according to its grade and weight. The bellies, shoulders and all flabby or imperfect leather are thrown out for shoe purposes, and the central portion or heart of the hide reserved for belting. The solid leather is carefully shaved on the flesh side, in huge machines operating somewhat on the principle of a milling machine, and is then scoured by other machinery for the purpose of opening up the pores for the reception of the stuffing of cod oil and pure beef tallow, by which the leather is preserved and made suitable for the transmission of power. This stuffing process, which occupies several hours in the Schieren process, imparts to the hide the long life which is a predominant feature of Schieren belting. When this is completed the leather is allowed to dry, brushed off, packed in bundles, and shipped to the New York factory.

Here follow the manufacturing processes by which this leather of Dixie tannage is converted into the famous "Duxbak" belting, the ultimate result of fifty years of progressive striving to produce the very highest grade of belting which it is possible to make. There has been a mystery of problems to adapt the belts to the progressive needs of modern industry—the introduction, for instance, of a beltless belt to supplant the old belted belt, found to be unequal to the requirements of electric-light plants; the "Excelsior Belt," introduced by the company in 1880, which was the first dynamo belt made with extra dressing to render the belt more waterproof and less susceptible to atmospheric changes; the "Electric Belt," the original black belt, the object of the blacking being to fill the pores and protect the belt from damage from the mineral oil which is prevalent where high-speed electric-light engines are used; the "Perforated Belt," patented in 1888 by the Schieren Company, and especially adapted to electric-light and street-railway service.

**Extra Belts for Extra Service.**

A specialty of the Schieren production is the manufacture of extra wide main driving belts for all kinds of factories and mills. The ability to do this with undeviating efficiency is maintained by the use of special machinery backed by 50 years of belt-making experience.

The highest culmination of this half century of effort is found in the world-famous "Duxbak" belting, a product the unapproached superiority of which has met world-wide recognition. It is the last expression of concentrated effort expended on the problem of quality, the leather made from the choice portion of the most carefully selected hides, the stuffing and dressing performed so as to secure unprecedented results in durability, a belt that sticks and holds, that functions ceaselessly, that makes its trade-mark name of "Duxbak" the international synonym for the highest belting effort, and an important factor in the repute that places America first in quality production of the necessities of industry.

**The Achievements of "Duxbak."**

From the correspondence files of the Schieren Company volumes could be compiled in support of the con-

tention that "Duxbak" is a service belt without a peer, and fully sustains the Schieren Company's claims that it is of "perfect construction from the toughest part of good hides, insuring maximum load capacity," and its special treatment rendering it immune to water and oils, and cites, among a large number of examples, a friction drive that "has given two years' service in a large hardwood mill without sign of stretch or wear." Only a few days ago one of the leading New York newspapers put in a new press of larger capacity and chain-driven in place of a press which a "Duxbak" belt had driven for approximately three years with the highest satisfaction to the newspaper company. The belt was in excellent condition, showing no kind of wear, and was sold by the newspaper to a satisfied buyer at a price about 50 per cent. greater than had been originally paid for it when new. It had stood without a falter the exacting test of running the press of a metropolitan paper, demonstrating its reliability and power, and sold for a price which, while partially

cially in the Polytechnic Institute, afterward broadening his knowledge by much foreign travel—in Europe, Cuba and Mexico.

His first induction into business life was as an apprentice in his father's tannery, from which he went into the position of a traveling salesman for seven years. He has always recognized that his vocation in life was to be the making, sale and distribution of leather belting, and from boyhood aspired to the mastery of all knowledge possible to be acquired about that business. So that when he came to be its executive he was fully efficient to secure the permanent progress of a business ever expanding as the result of a product into which every possible ingredient of expert knowledge had been put.

**Honors and Awards.**

Medals and awards have come to the Schieren belts wherever placed in competitive exhibition. The American Institute honored them twelve times between 1869 and 1891. At the Centennial Exposition of 1876; World's Columbian Exposition, Chicago, 1893; Atlanta, 1895; Nashville, 1897; Omaha, 1898; Liverpool, 1893; Paris, 1889 and 1900; the Pan-American Exposition, Buffalo, 1901, in some instances taking both the gold and silver medals at the same exposition. More recent honors were the Grand Prix highest awards at Brussels, 1910, and at Turin, 1911, and the gold medal of the Panama-Pacific Exposition in 1915.

The confident knowledge of Mr. Schieren, now president of the Charles A. Schieren Company, that the product of the company was of a quality able to compete, to its advantage, with any made anywhere, coupled with his observations abroad, led him to the investigation of the possibilities of export trade, with the result that branches were established at several European points, while the domestic trade is conveniently reached through branch houses at Atlanta, Ga.; Boston, Mass.; Chicago, Ill.; Cleveland, Ohio; Detroit, Mich.; Denver, Col.; Kansas City, Mo.; Memphis, Tenn.; New Orleans, La.; Philadelphia and Pittsburgh, Pa.; St. Louis, Mo.; Salt Lake City, Utah; Seattle, Wash., and Dallas, Tex., each of which is the center of an active and growing business covering its trade territory.

**The Schieren Export Trade.**

In these days, when American business thought, outside of its concentration on the problem of winning the war, is chiefly occupied with the related question of expansion of American business with foreign lands, the export question looms large. In this the Schieren house is especially fortunate in having made a most substantial beginning before we entered the conflict and has established the most favorable relations in all parts of the world where belting is in use. Somewhat temporarily hampered in facilities for transportation to European ports, the company is centering its attention very largely in supplying customers and adding to their number in South America, the West Indies, South Africa, the Dutch East Indies and Hawaii. In the Hawaiian Islands one of the company's most prominent representatives is now en route to the Philippines, where the Company already has branches; to China, where, except at Shanghai, the Company has no established branch; to the Straits Settlements, the Dutch East Indies and British India. In these countries, and wherever introduced, the Schieren "Duxbak" belting has established itself as premier in quality, load capacity and durability. Its standard quality, everywhere recognized, commends it to favor as an



PRESENT HOME OF THE CHAS. A. SCHIEREN CO., 30-38 FERRY STREET, NEW YORK CITY.

reflecting the general advance in commodity prices, also testified to the undeteriorated excellence of the belt after three years of constant wear.

**The Personal Equation.**

Of the problem of progress and success worked out in the 50 years of Schieren development the personal equation has been ever a controlling one. The founder, Charles A. Schieren, impressed upon the enterprise his high ideals, scrupulously maintained. He was a man of mark not only in the business world, but also as a citizen of high purpose and achievement. As the Mayor of Brooklyn in its last years of municipal independence prior to its merger in the greater city, he is remembered for an administration marked by undeviating devotion to the best interest of that city. He died March 10, 1915, under the seal of approval of the business world and his fellow-citizens, as a man who had done his part with faithfulness and honor and had earned, as well as deserved, universal respect.

His son, Charles A. Schieren, who succeeded to the active executive management of the business, came to it fully equipped in every respect for the duties that thus devolve upon him. He was born May 8, 1863, in Brooklyn, was educated in the schools there, and espe-

## Why Germany Wants Peace.

By Ira M. Price in *The Standard*, one of the leading religious papers of Chicago.

Germany had a definite, well-planned scheme of her first dash for world supremacy. She has now already captured and secured control of more than four-fifths of the territory and peoples included in that first program.

In 1895 and 1911 her aims were published almost in detail. They included in the west the seizure and absorption of Holland, Belgium, Luxembourg, North France to a line drawn from the mouth of the Somme River southeast to Belfort on the border of southern Alsace near Switzerland, and all of German-speaking Switzerland; on the southeast, Austria-Hungary and the Balkans entire; on the east, Russian Poland, the provinces of Courland, Estonia, Livonia and the three Russian principalities of Kovno, Vilna and Grodno. The total population of these countries outside of the German Empire is about 116,000,000. Add to these Turkey, with her 20,000,000, over whom Germany today has complete military control, and we have 136,000,000. To these add the 68,000,000 of Germany, and we have the immense total of 204,000,000 of human beings. By the reckoning of Cheradame ("The Pan-German Plot Unmasked," pp. 13 ff.) 77,000,000 are Germans and 127,000,000 are non-Germans.

Of this stupendous scheme of conquest Germany now holds and controls Belgium, North France—just a little less than she planned—Luxemburg, Austria-Hungary, her ally, and practically all the Balkans except Greece and Bulgaria. In Russia she secured nearly twice the territory originally marked out, including Finland, Ukraine and several Black Sea ports. Berlin gives her orders to all her allies and absolutely controls their armies. Even the Bolsheviks of Russia are at the command of the general staff on Koenigplatz in Berlin.

The so-called peace treaty signed at Brest-Litovsk was "made in Germany." Its purpose apparently was to break up all Russian opposition, to weaken the Allies and to allow the German octopus to seize all the territory her tentacles could reach. She has already reached far into European and Asiatic Russia, and regards the Brest-Litovsk treaty merely as a "scrap of paper."

Germany's "hint" for a peace conference, through her protege, Austria-Hungary, is not made primarily because of lack of man-power, nor of economical distress, nor of exhaustion of resources, nor of acknowledgment of defeat, though all these may be crowding the issue to the front. But her supreme aim now is to hold what she has already conquered and consolidate it under a peace compact with the Allies, which she herself will regard merely as an armistice. If she could secure by a peace treaty all she now holds and controls on the southeast and east front she could well afford to withdraw her armies from Belgium, France and Luxemburg, and even for the present give back to France Alsace-Lorraine, wrested from her in 1871.

Such a move on the part of Germany might seem to some persons, even to some officials, as a magnanimous concession. But wait. See what that means. Germany now has under her thumb all Austria-Hungary, Serbia, Montenegro, Roumania, Turkey and an unmeasured amount of Russian territory and people. Not less than 200,000,000, or twice the population of the U. S. A., will be under her sway. It will take her 10 to 20 years thoroughly to organize these immense areas and populations into one Prussian empire. Then what will happen? The Hohenzollern dynasty wants no better opportunity to prepare for the realization of its great world conquest. Assuming that it is successful in amalgamating these peoples, in 20 years it will easily produce an army of 25,000,000 of men. These hosts of thoroughly drilled troops would be equipped with the most effective instruments and elements of destruction in all branches of service on and under water, on land and in the air, that the experiences of the present war and scientific knowledge can devise or invent. The enemies of fighting men would be so overwhelming in numbers at the start that nothing would stop them; even as nothing, not even killing devices, can stop the advance of armies of grasshoppers on the Western plains.

With what ease in such a case could she recapture all the territory in the west which she apparently so willingly would now give us a concession to gain peace. Not only would she retake this, but she could push her millions of troops into every country and land and make them her subjects and slaves.

Either this entire globe would be her prize, her

plunder, her possessions, within a short time or every civilized nation on earth would be compelled henceforth, by the menace of the new armies being developed under Prussian rule, to make its land an armed camp, a military machine of the most effective kind, preparatory to the next war. And that war Germany will provoke when "the day" arrives, just as truly and as inevitably as she precipitated this first dash for a specific goal for supremacy from Hamburg to the Persian Gulf.

Is this a vision or a dream? When Germany's world plans were published in 1895 and in 1911 the statement of the allied countries regarded them as the products of the imaginations of enthusiastic Pan-Germans. They were not taken seriously in any allied country. Here and there individuals, like Lord Roberts in England and Cheradame in France, saw the potential storm, though no larger than a man's hand. But their alarms were practically unheeded and the peace-loving nations could not even suspect that such a daring scheme would be launched on the world. When Germany was ready she decreed "the day" and made the first dash—planned for more than a score of years—to secure her first objectives before her foes could mobilize their practically unprepared armies (except France). The results we have all seen.

Now, to consider a conference for peace on any terms short of those laid down by President Wilson and approved by the Allies would be a crime against all the world for all the future. To accept a German peace now would wipe out the tremendous sacrifice of men, money and material already made during the last four years and allow Prussianism, with all its policies of militarism, of lawlessness and of tyranny, to organize another and more awful scheme of conquest to be put into operation in the next generation.

The smashing of the Prussian military system, with all its political affinities, is the only safe and sure prerequisite to the consideration of any discussion of peace terms.

**There should be such a series of victories on all the fronts and in Germany itself as shall wholly wipe out Prussianism and its leaders and free the German people themselves from the tyranny that has defrauded them of their freedom, their liberty, their property and their sons. Until that end has been reached every "peace offensive" from the Central Powers or their friends should be unhesitatingly repulsed.**

## A Peace That Will Be Satisfactory to America.

[The Hastings (Fla.) Herald.]

Editor Richard H. Edmonds of the MANUFACTURERS RECORD has summarized the terms upon which peace should be granted to the Central Powers by the Allies.

Believing his summary will be approved by every true American, we give it herewith:

"Unconditional surrender of armies and navies.

"The death penalty inflicted upon the Kaiser and every male member of the Hohenzollern and Hapsburg families who have been parties to this war, and every military and political leader responsible for bringing on this world crime.

"Full payment in ships or money for every ship sunk by the German submarines.

"Restoration in money or materials of every product, whether of art, or machinery, or foodstuffs, or raw material, or jewelry, or cars, or locomotives, or securities, or money, of which Germany has looted other countries.

"A financial indemnity to the family of every soldier who has been murdered or permanently invalidated in the armies of America and our Allies, and a similar pension or payment to every man and woman from the overrun countries who have been enslaved by Germany and made to work on its farms or in its factories.

"The repudiation or confiscation of every dollar of bonded indebtedness of every kind outstanding against Germany, Austria, Turkey and Bulgaria and held by any of the citizens of these countries, the total amount of these bonds to be used towards the payment of the cost of the war to the Allies. To this should be added an additional indemnity sufficient to cover all the expenditures made in America and our Allies in carrying on the war.

"Turkey forever banished from Europe.

"Any suggestion of 'neurotic sympathy' for such unspeakable criminals would show a flabbiness of moral strength, a weakness of moral backbone, which for centuries to come would lessen the moral standard of all the world."

## Must Solidly Stand for Full Reparation and Punishment—Then Great After-War Problems Will Come Up.

Stuart, Fla., October 21.

Editor Manufacturers Record:

I have received a reprint of editorials of the MANUFACTURERS RECORD, and the Lilly Company requests that I write you if I am pleased with the reprinting of the articles. This seems to imply that I might not be pleased, and seems like a joke worthy of Mark Twain at his best.

Had I been asked four years ago what one of all our American periodicals would most appeal to me, I would never even have thought of the MANUFACTURERS RECORD. I am not a manufacturer, nor even a businessman, and the MANUFACTURERS RECORD is a specialty magazine. As a periodical striving from the outbreak of the war, sanely, strenuously and with foresight, to stimulate patriotism and urge preparedness for our safety, and in wise, unselfish, persistent effort to awaken our people to the great danger menacing our nation, and to speed up our Government since we entered the war, the MANUFACTURERS RECORD stands among other periodicals as the great Theodore Roosevelt stands among other individual good, patriotic Americans—not merely "head and shoulders," but clear to the hips above them. A greater compliment is impossible, but you deserve this for the honorable part you have taken in the war.

The horrible German power and people seem to be breaking down. Just how bad conditions are in their army and among their fiendish people we do not know, nor do we know just how strong General Foch is to continue his glorious victory at this unfavorable season, but whether a collapse may come any day now, or whether we must fight on for another year, victory for us is certain.

Another thought impresses me strongly: To those of us who are not actively engaged in manufacturing it might seem now that our interest in the MANUFACTURERS RECORD would wane, but this is far from the truth.

From him who has done much one may safely hope for more. You have been in from the first, and are not finishing a great fight, but there remain two great fights of equal interest to your admirers. The first is to make the sentiment and determination of our people such as will compel our peace commissioners to stand solidly with France and England to get full reparation for all ravished peoples, and impose adequate punishment on the chief of all criminals, high and low. Neglect in doing this would bring the same disgrace on a vast scale to civilized nations as is brought on a smaller scale to a court when a particularly vile criminal is freed by official corruption or mauldin sympathy.

And when peace is established we will face a struggle of a different nature, but as great as any we have been through. Tremendous opportunities for trade will be open in the new world. It will be up to us to play a greater part than any other nation, even England. But the wage problem due to the war, the money problem due to special taxation of the industrial leaders, the socialistic experiments we have made as war measures and all the great tasks of readjustment to peace conditions will tax the best minds of the nation. In these coming struggles our interest in the MANUFACTURERS RECORD will increase rather than grow less.

Sincerely yours,

O. P. MAXSON, M.D.

## For "Eternal Justice Sake" We Fight.

The Warren Record.

Warrenton, N. C., October 14.

Editor Manufacturers Record:

We feel that it would be a blow to the patriotism of Warren and Vance and Halifax and the Halifax Times if the vibrant patriotism and progressive Americanism of the MANUFACTURERS RECORD was not made available to our readers through the republication courtesy allowed by your publication.

Accept my sincere good wishes in the great work which you are doing—work which is lasting and for eternal justice's sake. Enter us at once upon the mailing list and enable us to further distribute and personally enjoy the articles from the pen of Mr. Edmonds and the red-blooded patriotism of every issue.

W. BRODIE JONES, Editor.

Fear that  
About

Editor Manu  
Accept my  
and many  
were suggest  
men. I wish  
house the b  
criminal peac  
I am enche  
Hon. William  
get to the I  
will be inter  
Mr. Mardi

Dear Sir—  
for the lack  
is the belief  
stration is p  
the first opp  
without just  
un speakable  
alles again  
that blood is  
lives for uphe  
lives and ran  
Armenia, the  
the arch-con  
seeding to co  
There is no  
motions to  
paper pu  
other hand,  
ones and a  
assassin and  
these periods  
the public is  
s and by a  
about the fo  
go to be a

The public  
roused by th  
and Turks.  
destruction o  
these countr  
and lamentab  
world as sou  
flicts.

I hope tha  
the underne

Unconditio

Editor Manu  
I was cert  
sign to Pres  
Sun, and I  
our forcible

I hope you  
and fight for

Let us fight  
the battle in  
the German

I hope M  
to the scoun  
disury on th

If the arti  
only be reac  
tage there w  
keep up you  
the pacifists

Good luck  
drills right

I had the  
the Civil W  
ever will s  
under is ac  
under as G  
will the wo

## Fear that Pacifist Leanings Would Bring About Peace Without Punishment.

Prospect House.

Niagara Falls, N. Y., October 25.

*Editor Manufacturers Record:*

Accept my hearty congratulations for your vigorous and manly stand against an unwise and premature peace suggested by a number of daily editors and public men. I wish you would keep up the good work and arouse the public sentiment against such hasty and criminal peace action.

I am enclosing a copy of a letter which I wrote to Hon. William McAdoo, Secretary of Treasury, in reference to the Fourth Liberty Loan, in which I know you will be interested.

JOHN R. MARDICK.

Mr. Mardick's letter is as follows:

Prospect House.

Niagara Falls, N. Y., October 11.

Hon. William G. McAdoo.

Secretary of the Treasury.

Washington, D. C.:

Dear Sir—Re: Fourth Liberty Loan. One reason for the lack of interest of the public in the fourth loan is the belief of a great number that the present Administration is pacifist at heart and that it would not lose the first opportunity to conclude a premature peace without just reparation and condign punishment for the unspeakable crimes committed by Germany and her allies against humanity. The people think that now that blood is shed and millions have sacrificed their lives for upholding honor and decency against the assassins and ravagers of Belgium, France, Serbia and Armenia, they should not go scot-free, without bringing the arch-conspirators and plotters to the gallows according to common law.

There is nothing in the President's messages or proclamations to assure the public about reparation and proper punishment of the guilty individuals. On the other hand, there is a tendency to let bygones be bygones and a readiness to shake hands with the nefarious assassins and sit at the same table as of old. During these periods of peace parleys and note writing, unless the public is otherwise informed by vigorous and manly stand by the present Administration, the same slackness about the fourth loan will continue and perhaps it may prove to be altogether a failure.

The public opinion all over the world is intensely aroused by the crimes and depredations of the Germans and Turks. Hence, with anything short of complete destruction of the Prussian armies and intrigues of these countries, there may be great political upheavals and lamentable acts of personal vengeance all over the world as soon as the soldiers return from the battle fronts.

I hope that the statesmen will be wise enough to see the underrun of public feeling and act accordingly.

Respectfully yours,

JOHN R. MARDICK.

## Unconditional Surrender Demanded by a Civil War Veteran.

New York City, October 23.

*Editor Manufacturers Record:*

I was certainly very much pleased to read your message to President Wilson as published in the New York Sun, and I want to congratulate you on the spirit of your forcible argument.

I hope you will keep on pounding the German hordes and fight for unconditional surrender, and nothing else. Let us fight those brutal demons to the end. Keep up the battle in the future as you have in the past. Give the German autocrats hell for all time to come.

I hope Mr. Wilson will not write any more notes to the scoundrels who have brought such suffering and misery on the whole world.

If the articles published in your valuable paper could only be read by all our people and the peoples of Europe there would be a different thought by all. Please keep up your work; fire shot and shell in the ranks of the pacifists.

Good luck to you, and more of it; hit the murderous devils right between the eyes.

I had the honor to serve with General Grant during the Civil War, and I hope, and hope hard, that we never will stop this brutal war till unconditional surrender is accomplished. Speak for unconditional surrender as General Grant did. Then, and not till then, will the world have a lasting peace.

W. R. WHITNEY.

## Not Very Friendly.

[Anniston (Ala.) Star.]

Judging from a catalogue of crimes he has compiled against them, one might be left to infer that Editor Richard H. Edmonds of the Baltimore MANUFACTURERS RECORD is not on very friendly terms with the Kaiser and his subjects. "To grant Germany and its allies peace would be to welcome back to civilization without punishment nations which," he says, "can be truthfully characterized as composed of liars, sharks, pirates, assassins, murderers, rapists, mutilators, bandits, despilers, plunderers, pillagers, freebooters, looters, hypocrites and manglers of children."

Nor is that all. One word is not enough, in the opinion of Mr. Edmonds, to describe the depravity to which the latter-day Huns have sunk; so he proceeds further to speak of them as—

"Destroyers of cathedrals; bestial brutes whose crimes 'sicken a tiger'; robbers who have looted homes and nations alike; criminals whose hands run red with human blood; destroyers of womanhood and civilization alike; atheistic barbarians who would blot out Christianity; murderers on the high seas; gloators over their own infamies; crucifiers of prisoners and bombers of Red Cross hospitals; makers of holidays to celebrate the murder of 1000 women and children and non-combatants; instigators of every vile devil-controlled mind and soul in neutral countries to poison the mind as they poison the wells; violators of every agreement as 'scraps of paper,' whose spoken or written contract is as worthless as a box of matches in hell; would-be world looters who cut down fruit trees with the same ruthlessness that they poison wells," etc.

"And shall we make peace with such scoundrels, whose crimes, whose turpitude, whose moral depravity and inherent vileness has made them the mental and moral prostitutes of all ages, and the willing murderers of millions of men, women and children?" he asks.

"May God forbid!" says Mr. Edmonds, in answering his own question, and the Anniston Star is rather disposed to agree with him.

## Justice Would Bring Full Punishment to Germany, Though Some Flabby Minds Try to Make Justice Seem Vengeance.

Millburn, N. J., October 24.

*Editor Manufacturers Record:*

It goes without saying that a righteous and just peace, if one can be devised, would be the best thing that could happen to the whole world, including Germany (meaning the nation). At the same time, such a peace is the last thing that Germany and a good many people outside of Germany, I fear, desire. In such a peace reparation and restitution will be carried as far as is humanly possible, of course, but as for revenge—well, we have it on high authority, none other than the Christ you so often quote, that we should not avenge ourselves, that "vengeance is mine, saith the Lord, I will repay."

"Would it not be well to show that ours is not the German spirit, by sticking to justice and talking less of vengeance? Is it pro-German to suggest it?"

STEPHEN BELL.

We have never seen anyone suggesting vengeance, but everybody who is honest-hearted demands justice, and justice means full measure of punishment to criminals. Anyone who tries to indicate otherwise is coming dangerously near to doing what Germany desires, and that is to create the impression that justice would be vengeance. Mr. Bell does not seem to be very well posted on Biblical quotations.

## Germans Pray, Prey, Promise and Prevaricate. In Other Words, Are Hypocritical Thieves and Liars.

Sakine Tram Co.,

Deweyville, Tex., October 19.

*Editor Manufacturers Record:*

Please accept thanks from my friends and myself for the copy of the MANUFACTURERS RECORD reprint of October 10. We are with you, men, women and children, in your views on Hunnish Hunism, and we believe that your paper is the greatest exponent of "American Americanism" extant, and will be referred to as such as long as "America" breeds Americans.

No, we do not believe the "United States" went into this war to negotiate peace. On the contrary, she went into it to make peace, and has sent about 2,000,000 peacemakers to France for that purpose, and will send as many more as may be needed.

I can see through the Hun's peace (?) move as

plain as the man who made it. While I admit they want "peace," they don't want an "Allies peace." Their great aim is to keep praying, preying, promising and prevaricating with the hope of lulling the Allies into relaxing their vigilance, then, presto, one big massacre!

I know the Hun. I spent five months as a volunteer in the French army under Colonel Gordon in '70 and '71, and I have also spent eight months in German ships. The Hun believes everybody else is just like him except in one thing; he thinks he is smarter than anyone else, but believes that they are just as crooked as he is. I never knew one to be honest unless he was forced to be. I never knew one to tell the truth unless he was compelled to, and I never saw one fight unless he was sure he had the advantage. I know the Hun. The egotistical idiot believes that he can inveigle the Allies into separate peace—watch him try Italy.

I am getting pretty well up in years, but I sure hope I live long enough to see the whole damn Potsdam gang hung—that's all we need, a "g" on the end of Hun.

CAPT. D. G. PRICE,  
Veteran Civil and Spanish Wars.

## Secretary of State Lansing On Germany

In describing Germany in a recent address, Secretary Lansing, who has had abundant opportunity to study German methods, said:

"Americans, even among those intellectually equipped, have but vague ideas of the perverted mental attitude which made Prussianism possible, and of the reason why a compromise founded on the Prussian conception of international rights must not even be considered."

"I shall not attempt to enter upon a recital of the horrible brutalities perpetrated by the German armies in the prosecution of the war. They have been too often told to require repetition. It would be the needless reading of a catalog of black deeds of cruelty which would sicken a tiger by a nation which claims not only to be moral and possessed of humane sentiments, but to be actually commissioned by the Supreme Being to carry out His will."

"German diplomacy and intrigue, as now practiced, must be proclaimed an international crime, and suppressed forever. The philosophy of the 'superman' and of world mastery must die discredited. The evil influences which have so long poisoned the minds of the German people must lose their potency."

Secretary Lansing's full address should just now be read by every man and woman in America. It will be found in a pamphlet published under the title:

## "Germany—The World's Blackest Criminal"

15 Cents Per Copy  
100 or More, 10 Cents Per Copy

Published by  
MANUFACTURERS RECORD PUBLISHING CO.  
Baltimore, Md.

# FIFTY YEARS OF PROGRESS IN THE LEATHER BELTING BUSINESS

**From a Three-Man Factory to a World-Famed Enterprise.**

## FACTORS IN EVOLUTION OF "DUXBAK" BELTING.

**The Charles A. Schieren Company, Its Growth and Continuous Success—A Broad Policy Closely Adhered To—Quality the Cornerstone of Its Prosperity—Its Dixie Tannery and Its Products—Its World-Wide Distribution of Its Belting—Its Place in War Work—Its Service to Trade and Customers.**

**T**HE history of the tanning industry and leather trades in New York is interesting because of the greatness of its development and the constancy with which for 185 years it has been centered in the locality still known by its original characterization as "the Swamp."

When the Dutch first settled on the Island of Manhattan they located their city of New Amsterdam in the lower end of the island, and soon started such industries as seemed appropriate to the resources and conditions of the island. The chief industry was the buying and skipping of furs and skins of various kinds.

The trade of the tanner was one of the first introduced on the island, and the tanners located on Broad street until the growth of population around the tanneries led to a decree from Governor Stuyvesant and his Council banishing the industry beyond the city wall (Wall street) to Maiden Lane, near the East River. There it remained till, under the British Colonial management, this region, too, became encroached upon by residences and the authorities showed a desire to push the industry still further afield.

### Genesis of "The Swamp."

The chief necessity for a favorable locality for tanning upon the best methods was and is an ample supply of oak bark, the indispensable material for the manufacture of the best quality of leather. In 1734 Jacobus Roosevelt was looking about for an available site for tanning. Northeast of the city, and not far east from the Commons, was a large body of marshy ground covered by great and tangled briar patches. But all around was a considerable forest of oak trees with a supply of bark which was of a quality suitable to the manufacture of leather. He bought the tract, selected a site for his own tannery, laid the plot out into 50 generous lots, and sold them, as demand developed, to other tanners. The tanning industry was centered on this tract and flourished for a long time until the bark was used up, and the industry was banished from "the Swamp." But though the tanneries were removed, the tanners stayed, and the

other branches of leather activity remained, many tanneries of national and even international fame making their homes there.

### A Half Century of Schieren Effort.

Fifty years of progress, culminating in unquestioned leadership of the important branch of industry in which it is engaged, is the record of the Charles A. Schieren Company, manufacturers of leather belting.

Its present eminence is due to the evolution of a settled purpose on the part of the founder to earn success by deserving it, to make the best belt it was possible to make, and in that way and by reasonable prices and fair treatment to satisfy every customer. It was

the man behind the enterprise. It began in small quarters at 90 Gold street, and remained there until 1881, since which time it has been at Cliff and Perry streets, and finally built the present large and imposing building at that intersection for use as offices, salesrooms and factory, a fitting home for what has grown to be the foremost enterprise in the leather belting industry, famed for its product of highest grade and for the world-wide scope of its business.

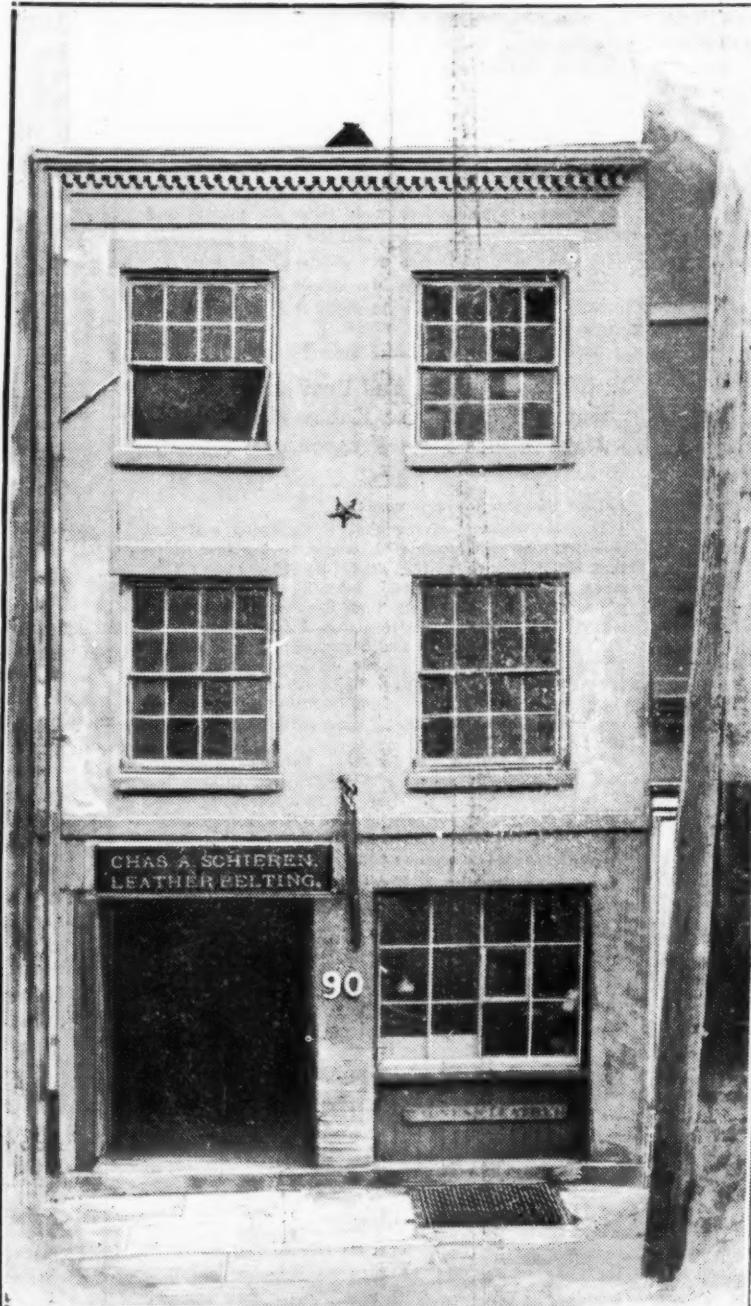
At the base of this development there has been, on the part of the founder, and his sons, who now conduct the enterprise, an intelligent realization that the driving belt has a function of the highest importance

in the success and efficiency of a manufacturing plant. The regularity and speed of operation of the plant are in exact ratio to the faithfulness or failure of the belt to perform its function. Therefore, the serious and ceaseless efforts of Charles Adolph Schieren, who founded the business, and his sons, who have succeeded him, to improve the belt to a degree of durability and reliability never before attained, has added most materially to the accomplished horse power of manufacturing plants all over the world.

### Founding the Dixie Tannery.

To provide itself with the resources and equipment required to secure the highest development of driving-belt usefulness the Schieren Company sought out a locality where it could secure the largest and most continuous supply of oak bark to enable it to use the old-fashioned, long-time pure oak-bark tannage, which is still superior to all other methods of tanning leather for belts. The locality was found at Bristol, Tennessee, in the Holston Valley, 1800 feet above sea level, surrounded by the Holston Mountains. Here the Schieren Company established, in 1893, the Dixie Tannery, a plant which has grown and developed in size, capacity and equipment to keep up with a demand that grows year by year for the superior product of the Schieren factory. The bark of each variety of oak has an especial adaptation to some particular grade of leather, but for belt no other equals that of the rock oak, which the chief habitat is found in the vast forests of the Appalachian chain of mountains on the boundary line of Tennessee and Virginia and southward into North Carolina. The Dixie Tannery is central to this extensive region of bark supply, the bringing in of which employs numberless carts, which come in endless procession to the tannery in early spring.

laden with rich oak bark which has been stripped from the trees by hardy mountaineers, and which is dried and seasoned for the use of the tannery during the ensuing year. To the tannery from other directions come trains of freight cars loaded with hides from the slaughter-houses of Kansas City and Chicago.



THE OLD STORE, 90 GOLD STREET, 1868.

a small business when it began, but the founder, Charles A. Schieren, was a man of high ideals and strong personality, who never swerved from his programme of probity and efficiency. So that, although he began the business in 1868 with only two men to help him, his success was forecast by the character of

**The Tanning of Belt Leather.**

The processes of cleansing, liming, "bating" (to remove the lime), and then the various tanning processes, consume 120 days to bring it to the condition of leather fit to use as the raw material for belting.

Taken from the vats, the hides are washed to remove every particle of tan bark and then dried in a darkened loft with very little heat, after having been fed on the grain side. Each hide is then cut into widths according to its grade and weight. The bellies, shoulders and all flabby or imperfect leather are thrown out for shoe purposes, and the central portion or heart of the hide reserved for belting. The solid leather is carefully shaved on the flesh side, in huge machines operating somewhat on the principle of a milling machine, and is then scoured by other machinery for the purpose of opening up the pores for the reception of the stuffing of cod oil and pure beef tallow, by which the leather is preserved and made suitable for the transmission of power. This stuffing process, which requires several hours in the Schieren process, imparts to the hide the long life which is a predominant feature of Schieren belting. When this is completed the leather is allowed to dry, brushed off, packed in bundles, and shipped to the New York factory.

Here follow the manufacturing processes by which this leather of Dixie tannage is converted into the famous "Duxbak" belting, the ultimate result of fifty years of progressive striving to produce the very highest grade of belting which it is possible to make. There has been a mastery of problems to adapt the belts to the progressive needs of modern industry—the introduction, for instance, of a steel belt to supplant the old leather belt, found to be unequal to the requirements of electric-light plants; the "Excelsior Belt," introduced by the company in 1880, which was the first dynamo belt made with extra dressing to render the belt more waterproof and less susceptible to atmospheric changes; the "Electric Belt," the original black belt, the object of the blacking being to fill the pores and protect the belt from damage from the mineral oil which is prevalent where high-speed electric-light engines are used; the "Perforated Belt," patented in 1888 by the Schieren Company, and especially adapted to electric-light and street-railway service.

**Extra Belts for Extra Service.**

A specialty of the Schieren production is the manufacture of extra wide main driving belts for all kinds of factories and mills. The ability to do this with undeviating efficiency is maintained by the use of special machinery backed by 50 years of belt-making experience.

The highest culmination of this half century of effort is found in the world-famous "Duxbak" belting, a product the unapproached superiority of which has won world-wide recognition. It is the last expression of concentrated effort expended on the problem of quality, the leather made from the choice portion of the most carefully selected hides, the stuffing and dressing performed so as to secure unprecedented results in durability, a belt that sticks and holds, that functions readily, that makes its trade-mark name of "Duxbak" the international synonym for the highest belting effort, and an important factor in the repute that places America first in quality production of the necessities of industry.

**The Achievements of "Duxbak."**

From the correspondence files of the Schieren Company volumes could be compiled in support of the con-

tention that "Duxbak" is a service belt without a peer, and fully sustains the Schieren Company's claims that it is of "perfect construction from the toughest part of good hides, insuring maximum load capacity," and its special treatment rendering it immune to water and oils, and cites, among a large number of examples, a friction drive that "has given two years' service in a large hardwood mill without sign of stretch or wear." Only a few days ago one of the leading New York newspapers put in a new press of larger capacity and chain-driven in place of a press which a "Duxbak" belt had driven for approximately three years with the highest satisfaction to the newspaper company. The belt was in excellent condition, showing no kind of wear, and was sold by the newspaper to a satisfied buyer at a price about 50 per cent. greater than had been originally paid for it when new. It had stood without a falter the exacting test of running the press of a metropolitan paper, demonstrating its reliability and power, and sold for a price which, while partially

cially in the Polytechnic Institute, afterward broadening his knowledge by much foreign travel—in Europe, Cuba and Mexico.

His first induction into business life was as an apprentice in his father's tannery, from which he went into the position of a traveling salesman for seven years. He has always recognized that his vocation in life was to be the making, sale and distribution of leather belting and from boyhood aspired to the mastery of all knowledge possible to be acquired about that business. So that when he came to be its executive he was fully efficient to secure the permanent progress of a business ever expanding as the result of a product into which every possible ingredient of expert knowledge had been put.

**Honors and Awards.**

Medals and awards have come to the Schieren belts wherever placed in competitive exhibition. The American Institute honored them twelve times between 1869 and 1891. At the Centennial Exposition of 1876; World's Columbian Exposition, Chicago, 1893; Atlanta, 1895; Nashville, 1897; Omaha, 1898; Liverpool, 1893; Paris, 1889 and 1900; the Pan-American Exposition, Buffalo, 1901, in some instances taking both the gold and silver medals at the same exposition. More recent honors were the Grand Prix highest awards at Brussels, 1910, and at Turin, 1911, and the gold medal of the Panama-Pacific Exposition in 1915.

The confident knowledge of Mr. Schieren, now president of the Charles A. Schieren Company, that the product of the company was of a quality able to compete, to its advantage, with any made anywhere, coupled with his observations abroad, led him to the investigation of the possibilities of export trade, with the result that branches were established at several European points, while the domestic trade is conveniently reached through branch houses at Atlanta, Ga.; Boston, Mass.; Chicago, Ill.; Cleveland, Ohio; Detroit, Mich.; Denver, Col.; Kansas City, Mo.; Memphis, Tenn.; New Orleans, La.; Philadelphia and Pittsburgh, Pa.; St. Louis, Mo.; Salt Lake City, Utah; Seattle, Wash., and Dallas, Tex., each of which is the center of an active and growing business covering its trade territory.

**The Schieren Export Trade.**

In these days, when American business thought, outside of its concentration on the problem of winning the war, is chiefly occupied with the related question of expansion of American business with foreign lands, the export question looms large. In this the Schieren house is especially fortunate in having made a most substantial beginning before we entered the conflict and has established the most favorable relations in all parts of the world where belting is in use. Somewhat temporarily hampered in facilities for transportation to European ports, the company is centering its attention very largely in supplying customers and adding to their number in South America, the West Indies, South Africa, the Dutch East Indies and Hawaii. In the Hawaiian Islands one of the company's most prominent representatives is now en route to the Philippines, where the Company already has branches; to China, where, except at Shanghai, the Company has no established branch; to the Straits Settlements, the Dutch East Indies and British India. In these countries, and wherever introduced, the Schieren "Duxbak" belting has established itself as premier in quality, load capacity and durability. Its standard quality, everywhere recognized, commends it to favor as an



PRESENT HOME OF THE CHAS. A. SCHIEREN CO., 30-38 FERRY STREET, NEW YORK CITY.

reflecting the general advance in commodity prices, also testified to the undeteriorated excellence of the belt after three years of constant wear.

**The Personal Equation.**

Of the problem of progress and success worked out in the 50 years of Schieren development the personal equation has been ever a controlling one. The founder, Charles A. Schieren, impressed upon the enterprise his high ideals, scrupulously maintained. He was a man of mark not only in the business world, but also as a citizen of high purpose and achievement. As the Mayor of Brooklyn in its last years of municipal independence prior to its merger in the greater city, he is remembered for an administration marked by undeviating devotion to the best interest of that city. He died March 10, 1915, under the seal of approval of the business world and his fellow-citizens, as a man who had done his part with faithfulness and honor and had earned, as well as deserved, universal respect.

His son, Charles A. Schieren, who succeeded to the active executive management of the business, came to it fully equipped in every respect for the duties that thus devolve upon him. He was born May 8, 1863, in Brooklyn, was educated in the schools there, and espe-

export commodity especially valuable for transportation to those countries where it is desirable to send American goods to stabilize exchange.

In the ordinary calculation of goods available for this important commercial purpose it is held to be profitable to send salable merchandise abroad if it has a value of \$100 for 45 cubic feet. Leather belting, on the other hand, is a high-priced freight commodity, which will run up to from \$2500 to \$3000 in value for the amount that can be packed in 45 cubic feet. Computed on the basis of value in exchange for the least tonnage, leather belting is one of the most favorable commodities for that use because high in price in comparison to weight and cubic measurement.

In the largely increased share of international commerce which is everywhere expected to come to the United States following the close of the war, Schieren belting will without doubt be one of the most active participants. There is no part of this world sufficiently civilized to possess belt-driven industries where the good name of Schieren belting has not gone, and the Schieren export organization may be trusted to find its way through every open export door.

#### Schieren Belting in War Work.

In these days, when the energies and thoughts of the Government and people of the United States are centered upon war-winning efforts, every large enterprise is judged, as to its character as an essential industry, very largely upon the percentage of its product which goes into war work. Estimated on this standard, the Charles A. Schieren Company stands very high among those whose output goes into industry which is in aid of success of this country in the war. Much of its product is sold direct to the Government. Of the rest, while the dealings of the company are with the manufacturing interests of the country, it is also true that the same manufacturing interests have been, in very large degree, turned into war-winning business.

The monthly returns made to the Government as to the percentage of the output of manufacturing concerns that goes directly into war work called forth a significant showing from the Charles A. Schieren Company, whose return for last month showed that 82.62 per cent. of its output went directly or indirectly into war work, as against 17.38 into other activities. The Schieren Company therefore ranks prominently among the industrial establishments whose efforts form such an important feature in the total of industrial effort for the country's triumph in war, even without the participation of the house, to its full share, in the Liberty Loan, Red Cross and other campaigns on behalf of the country's cause.

As the war progresses the percentage of the Schieren

product which is properly credited to war work perceptibly increases. The policy pursued by the Government constantly tends toward the elimination, for the period of the war, of industries that are not essential to the winning of the war, and the discouragement of new industries that are not aids to the great American purpose in the gigantic conflict in which the country is engaged, and so, while the total output of Schieren belting grows, the war-winning proportion of it also increases even in greater ratio.

#### The Schieren Engineering Service.

In its fifty years of activity in the belting industry the Schieren Company has learned most thoroughly the lessons that pertain not only to the manufacture of the belts themselves, but also and especially has learned how best to adapt this accumulated knowledge to the operating problem of the individual user. This has led to the creation of a new and valuable factor of the Schieren enterprise in its Engineering Service. This service is a legitimate expression of the company's basic purpose to satisfy every customer. As formally announced by the company, the purpose of this Engineering Service is not to allow the purchaser to buy any other belting than that which will most economically meet his requirements. Briefly explained, the Schieren Engineering Service is as follows: If exhaustive correspondence with a prospective buyer does not indicate unmistakably its most serviceable and economical use, the Schieren Company will send to the purchaser's plant a member of its engineering service—an expert thoroughly familiar with best adaptation of belting and its subsequent possibilities as an essential of power transmission—who will study the expected requirements and advise the size and kind of belting needed for the plant, giving his personal service also, if deemed advisable, in installing the belt or belts. This rather extraordinary service has the added motive with the Schieren Company of protecting the high reputation of its product while serving the best interests of the purchaser. Its net result is to make a lasting impression in substantiating the claims of superiority made by the Schieren Company for its product.

#### The Schieren Product and Dealers.

The Schieren beltings, while largely sold direct to the machinery user, form an attractive staple line, for dealers of the highest caliber who at many points act as distributors for Schieren beltings, through whom customers may obtain new belts quickly when needed. To such firms the Schieren beltings have especial value as a most salable line because there are few companies or firms anywhere who do not know in advance that Schieren beltings are honestly made and will give abso-

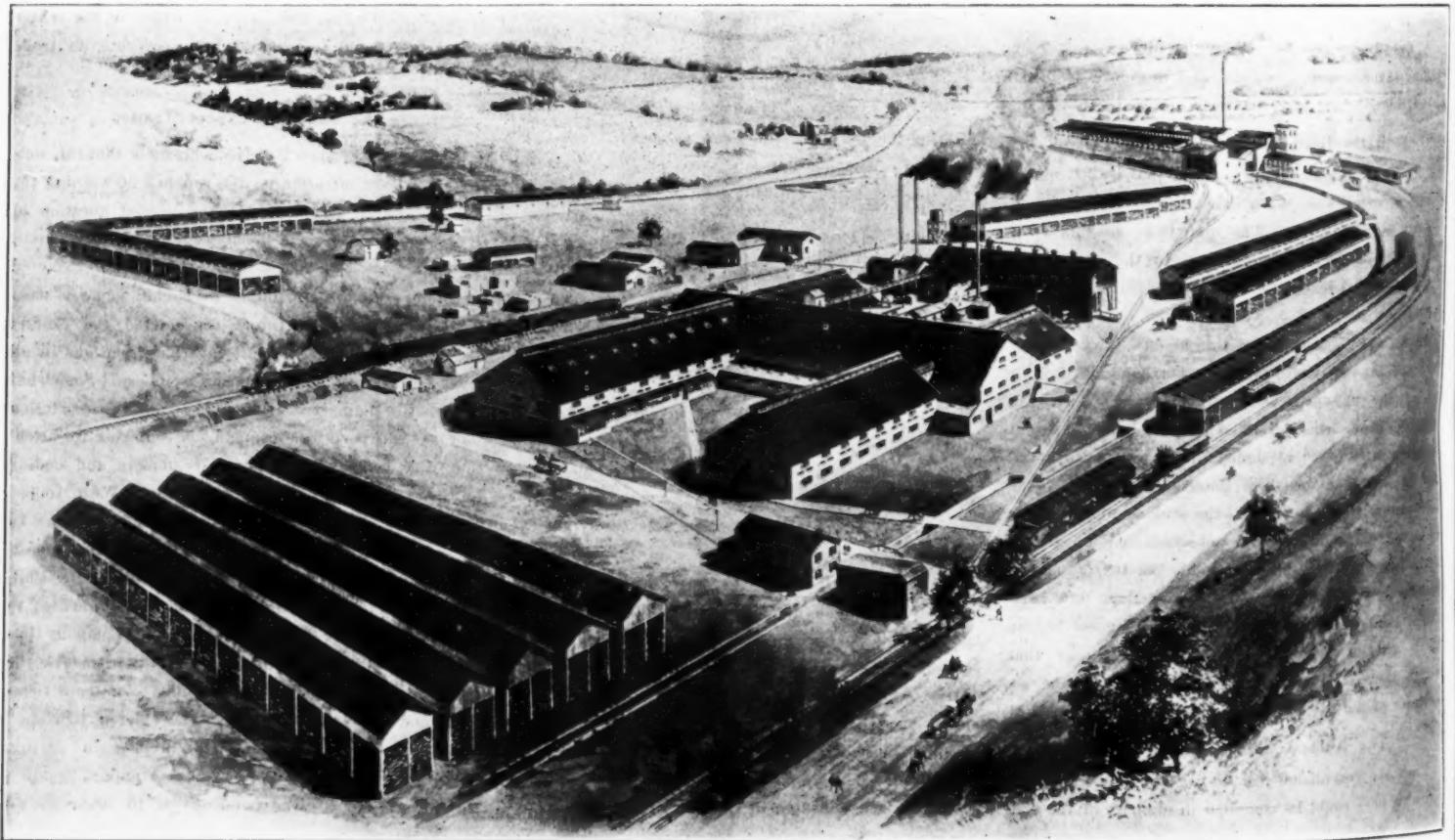
lutely the best service in their grades. Everything about the belt from the purchase and tanning of the hides has been done by the company, whose guarantee goes with its every product and whose reputation is firmly established everywhere. The company has from the first pursued a broad and liberal policy in its trade relations which has retained for it the customers' good-will and patronage year after year. Liberal terms and assistance are accorded to distributors.

Another factor which the dealer will especially appreciate is its publicity programme, which includes national and international advertising that has put the company in touch with buyers and users everywhere. Back of this advertising is the scrupulous care that is truthful and reliable and that reliance upon it is not dispelled upon test of it.

This reliance is justified by the fact that Schieren beltings, in all their varieties, are kept at uniform excellence. There is many a product of good repute of which occasional examples fall below scale. But the Schieren beltings are kept true to grade by careful test and continual supervision of every operation and process. No effort is spared that can help to sustain the pre-eminence of the Schieren name in the belting business. Every belt of the Schieren make, wherever installed, is a permanent testimonial to Schieren carefulness and thoroughness. The case is very rare that a manufacturer or other machinery user who has once placed Schieren belting in his plant and needs more belting will consent to try any other make, or experiment in unknown belting products. He knows that Schieren belts will do his work satisfactorily.

#### The Schieren Management.

The crucial test of any enterprise is the quality of its management. In the Charles A. Schieren Company the policy and effective control of the business are in the hands of its executive, insuring quality, accuracy and economy. The department heads are men who are thoroughly trained in their particular duties and so organized that every part of this extensive business works in perfect harmony. The representatives of the company at home and abroad are men who know the business and its product thoroughly. Whether it be in the manufacturing processes, which have been improved from time to time by the addition of special machines and equipment; the careful inspection which follows the product closely, from the green hide to the finished belt; the methods of service in engineering and sales departments, and the performance of Schieren belts wherever installed, the management and products of the Schieren Company reflect the straight course the business has followed for half a century.—Advertisement.



CHAS. A. SCHIEREN CO. TANNERIES, BRISTOL, TENN.—COVERING 23 ACRES.

# Whiskey and the "Flu"

By HOWARD A. KELLY, M.D., LL.D., Baltimore, Md.

Poor, fickle American people! Have we no minds of our own? Are we then, indeed, incapable of forming an opinion supported by an infinite number of indisputable facts, and then of holding onto that opinion for life? Are we like Kipling's Banderlogs, forever shouting "we are the people," as we form opinions upon vital matters one minute, only hastily to abandon them the next?

It does look like it when we see such a stir created by the recent disgraceful attempt to rehabilitate our most deadly national enemy, an enemy far more dangerous than the German armies in Europe, just as he is uttering into his grave, like a disreputable corpse too long delayed in the burial.

Now, why on earth all this fuss and ruction, when all that has happened has been the prescribing of whiskey for influenza patients by some doctors and some foolish laymen, distracted because their favorite beverage is being taken from them?

That many of these whiskey advocates are honest I have no doubt, but that all are ignorant I am equally assured. Most of the talk is kept up by the daily press, which is saturated with whiskey. Let me treat this matter by answering several questions.

1. Is alcohol of any service as a prophylactic; that is to say, is it good to ward off the disease?

2. Is alcohol of any positive well recognized use in curing influenza when it has once attacked the patient, or is it perhaps valuable in combating pneumonia, which is so deadly in "flu" cases?

3. What under heaven has the medical use of alcohol, if it has any such use, to do with the rehabilitation of alcohol as a beverage, or with the revamping of the saloon, or, indeed, with its use in any way whatever, except as a drug to be sold over the counter of the drug store for the occasional patient when the next great epidemic comes along?

First, then, let me declare emphatically that alcohol is not the slightest value in warding off influenza; on the contrary, it is calculated to do great harm by lowering resistance and inducing the befuddled patient to expose himself needlessly. No one but a layman devoted to his dram would contend that alcohol would ward off an attack of the disease. He who is foolish enough to let a layman prescribe for him would also take his broken watch to the blacksmith to be mended.

Secondly, no man of standing that I know of recommends alcohol as of the slightest use in treating the influenza itself. One of our greatest medical minds (Shattuck) declares that the American Medical Association (the greatest group of medical men in the world) speaks of alcohol as everywhere and under all circumstances an unmitigated poison. This same writer inclines to the belief that it may be of use in cases of profound general sepsis, at the same time declaring that "until some efficacious antitodal treatment of pneumonia is discovered the mortality will remain about the same. (see Johns Hopkins Hospital Bulletin, April, 1918). I find this statement in the 1912 edition of Oder's great textbook: "To combat toxemia alcohol is generally advisable." Strange to say, in the very next year I find in "Modern Medicine," also by Osler, and McCrae (1913), just the contrary opinion expressed in these words: "Certainly its employment is falling more and more into disuse," and "collected statistics of patients treated without alcohol show a lower mortality when it is withheld (Hay), and even in chronic drunkards immediate withdrawal is better than temporizing administration. (Galli, Hernung)."

If this last statement is correct, then we doctors, in our misguided zeal, have in the past been guilty of shortening the lives of some of our alcoholics by giving them alcohol during pneumonia under the false impression that it was not safe to withdraw it suddenly. But in the name of common sense, the uncommonest of all senses, what has all this to do with the use of alcohol as a beverage which is in process of extermination? What has it got to do with the saloon, the deadly distiller and the murderous brewer, as they seek to re-establish themselves once more in our midst in the renewed hope of poisoning the blood of the nation and filling our jails and our asylums and our hospitals once more, as well as making wrecks of our young manhood and wrecking myriads of families?

Digitoxin and strychnine and atropine are of value, too,

in influenza. Why not advertise the fact widely and make a hue and cry about them, too?

Alas, for the poor brewer and the poor distiller, who so recently ran out before the public crying, "Quick, give me some bonds, I am a patriot, too!" Here in a moment of excitement he has thrown off his camouflage lambskin and appears in his true wolf robes, ready, nay eager, to begin again his course of ruthless wreckage of the entire nation for his profit.

No, no, my dear friend, brewer, distiller and saloon-keeper, whom I would fain see saved for a nobler life in this world, and for the life eternal in the world to come, take my advice and let the putrid old hulk of John Barleycorn sink down into his disreputable grave, and spend your time better writing his epitaph, "*requiescat in pace.*"

And you fellow-Christians get busy finding suitable social and recreational substitutes for the saloon, and get into closer personal touch with every man in the non-Christian world and pray for him and persuade him to join you in taking Christ as his Lord and Master.

## Coal Output for Week Ending October 19 Smallest Since May.

Production of bituminous coal for week ended October 19 not only decreased \$60,000 tons, or 6.7 per cent., due to the influenza epidemic, but fell to the low weekly record of last May of 11,500,000 net tons, states the Geological Survey. The average production per working day is estimated at 1,920,000 net tons during the week ended October 19, as compared with 2,056,000 net tons during the week preceding, and as against 1,702,000 net tons during the week ended October 19, 1917.

The average daily production for the coal year to date is estimated at 1,902,000 net tons, which is slightly below requirements, and in order to make up the deficit it is necessary that daily production during the balance of the coal year should be equivalent to 2,039,000 net tons, or 2.4 per cent. in excess of the average daily production to date.

Carrier's reports show that the influenza epidemic caused a decrease in shipments from all fields with the exception of Western Pennsylvania.

The influenza epidemic also caused considerable loss in the anthracite fields, and production during the week ended October 19, estimated at 1,715,000 net tons, is a decrease of 240,000 net tons, or 12.3 per cent., compared with the week of October 5. The daily average during the current week is estimated at 286,000 net tons, as compared with 326,000 net tons during the week of October 12 and as against 335,000 net tons during the coal year to date. Total production for the period April 1 to date is estimated at 57,373,000 net tons, compared with 56,736,000 net tons for the same period of 1917.

Production of beehive coke in the United States during the week ended October 19 is estimated at 575,000 net tons, a decrease of 25,000 net tons, or 4 per cent., compared with the week preceding. The average daily production is estimated at 96,000 net tons, as against 100,000 net tons during the week ended October 12.

By-product coke plants of the United States were operated during the week ended October 19 at 91 per cent. of their full time, as compared with 91.3 per cent. during the week preceding. Of the total loss of 9 per cent., 1.3 per cent. was due to lack of by-product coal, 0.6 per cent. to shortage of labor, 5.7 per cent. to repairs to plants and 1.4 per cent. to other causes.

Material improvement was reported during the week in the Maryland, Pennsylvania and Tennessee plants. In Maryland the operators attribute the improvement to better labor conditions, in Pennsylvania to other causes and in Tennessee to repaired plants.

## 100 Per Cent. Increase in Broom Corn Production in Texas.

McAllen, Tex., October 25—[Special.]—It is shown by reliable statistics that have just been collected that the total broom-corn yield in Texas last year was approximately 6000 tons.

So far this season there has been shipped from points in the Lower Rio Grande Valley a total of 842 cars, with an average capacity of 10 tons each, making a

total tonnage of 8420 tons. A conservative estimate places the balance of the broom-corn crop of the Lower Rio Grande Valley at 300 cars, or 3000 tons additional, or a total tonnage for this section of 11,420 tons. This is considerable in excess of last year's production.

The shipment of broom corn from points in Texas, outside of the lower Rio Grande Valley, is estimated at 100 cars.

The figures show that the Rio Grande Valley will have shipped out approximately 11,420 tons; other Texas points, 1000 tons; thus more than doubling the output of the previous year.

## Big Top Crop of Cotton Promised in Texas.

Austin, Tex., October 25—[Special.]—It has long been said that the "Texas cotton crop can promise more and give less and promise less and give more than any other known crop." The latter part of this saying is proving true this year. Six weeks ago the cotton plants in Central and South Texas had the appearance of having produced their full yield; they were apparently in the dying stage. Then came good rains and an almost unprecedented period of warm, growing weather. The plants put on new verdancy and were soon loaded with a second crop of squares. Brighter prospects for an enormous top crop of cotton were never known than now. It is estimated that if frost should hold off until the latter part of November, fully 700,000 bales will be added to the earlier crop estimate of the yield for Texas. The weather has been ideal for this new growth of the plant. Recent generous rains have enhanced the already optimistic situation. It is not unusual for the date of the first frost to be as late as December, and if this should happen this year, the present prospects for a big top crop will undoubtedly be fulfilled, it is stated.

Attention has been markedly drawn this year to the wonderful success that is obtained in growing cotton by means of irrigation, even in those sections of the State where rainfall is ordinarily sufficient to insure an average yield of the staple. In the vicinity of Austin, in the valley of the Colorado River, irrigation of cotton was practiced to some extent this year. As a result of applying water when most needed the crop upon these irrigated tracts is yielding more than two bales per acre. Similar results have been obtained during the last several years in the lower valley of the Rio Grande.

Business conditions throughout the State are very satisfactory, according to reports received here. The ranching interests are ready to enter the winter in much better shape than last year, so far as the range is concerned. Most of them have already laid in their feed supply.

All kinds of building operations, except those that are most urgent and which relate in some manner to the war, are suspended. Plans are going forward, however, for a big renewal of these activities when the war is over.

## Wants Information as to Fiber from Pine Needles.

A subscriber to the MANUFACTURERS RECORD sends the following communication:

"We are interested in the fibrillation of the needles from coniferous trees, in particular those of the longleaf Southern pine and white pine. We have been informed that a fiber has been obtained from these needles in the South, but that the enterprises so engaged failed because of commercial objections to the fiber. We believe that these commercial objections, so far as we can imagine what they were, would be no hindrance to our use of such a fiber if it could be obtained at reasonable cost. In other words, we suspect that such a fiber is suitable for our purpose, but cannot state so definitely because we have never been able to secure a sufficient quantity for an intelligent trial."

"The length of the fiber would not be a matter of great concern to us, for we do not propose to use it in the manufacture of twine, mats or anything of such a character that a long fiber is desirable."

"If you could give us an idea of the history of these undertakings and the present status of them (if they have any at all), and have any suggestions to make as to how we could procure, say, two or three tons of such a fiber, we would be very much indebted to you."

We shall be glad to print any information on the subject which may be sent us by those who are informed.

# Bolshevism Typified in a Government Order

AUTOMOBILE OWNERS ORDERED TO CARRY PASSENGERS IN WASHINGTON

[Special Correspondence Manufacturers Record.]

Washington, D. C., October 25.

Individual liberty has been considerably sapped by restrictions made necessary by the war, but about the last word in Bolshevism was contained in the order recently issued in this city by E. B. Parker, chairman of the "Governmental Emergency Committee," directing owners of automobiles to carry Government employees to and from work.

It is true that the mandatory character of the announcement, as it first made its appearance, was afterward changed to a "request." There is small indication, however, that the change was due to a voluntary recognition on the part of the original sponsors of the "order" as to its high-handedness. Rather is the belief prevalent in Washington that the order acted so effectively as a boomerang that the better judgment ensued. It is at least a known fact that it had directly the opposite effect to that intended, as many automobile owners who previously gave a "lift" to the war workers immediately discontinued the practice when the order appeared. Many automobile organizations had also either protested against the order, or were preparing to do so, when it was altered to the form of a request.

As to the organization responsible for the remarkable order in its original form, the "Governmental Emergency Committee" was created in Washington to handle emergency matters in connection with the epidemic of influenza. Mr. Parker, of the Priorities Committee of the War Industries Board, was made chairman. Representatives of other departments were on the committee. Some members of the War Industries Board long ago recorded a high temperature, due to swollen head and intoxication resulting from an excess of power.

Mr. Parker and his associates decided that crowded conditions on street cars was one of the many conditions responsible for the spread of influenza. They issued a statement suggesting that Government employees walk to work, thus getting exercise and fresh air, and thereby reducing the chances of contracting the malady. The employees preferred to ride. Then the committee issued its order, prominently "played up" on the first page of every Washington newspaper, directing that "owners of passenger automobiles shall attach to windshields the following notice, obtainable at police headquarters, stations and substations:

"WAR WORKERS,

SEVEN O'CLOCK TO NINE-THIRTY,

FOUR-THIRTY TO SIX-THIRTY,

DESTINATION—(to be filled in by owner.)"

The order informed all war workers that they might hail any car not already filled; that a car hailed, unless on a pressing errand of mercy, "shall take up passengers to seating capacity." It was added that "the police will co-operate with this plan."

No better method for spreading the influenza could have been devised. Presumably those who rode in automobiles were safe, according to the committee. The effect of the order was to provide a crowded condition in automobiles, where the contact would be closer than in street cars. The order was, in its effects, an incentive to vice. The police were virtually instructed to co-operate in a plan which would give men walking on the streets an opportunity to hail respectable young women driving their own cars and to ask them for a ride. It furnished the opportunity for sporty young men driving cars to hail young women walking to their work, so that they might make their acquaintance. Every conventional safeguard deemed wise by society would be destroyed if the public obeyed the "order."

The chief feature of the order, however, is found in the plain invitation that is implied to Bolshevism. The city was informed in the order that property rights no longer counted for anything; that an automobile purchased by thrift and self-denial belonged to anybody who chose to commandeer it. If the shiftless obtained a taste of such distribution of property during an epidemic, why should they give up the privileges when the epidemic was over? The Government clerk, who

had saved his money, denied himself entertainment and little luxuries in order that he might purchase a car, finding that all his neighbors had a right to use that car, might well dispose of it on the theory that he could force someone else to carry him.

If any order ever pandered to Bolshevism this one did. Most of the motorists, some of whom formerly carried war workers, were so resentful that they ignored the order completely.

## New Type of Barges for River Transportation.

By EDWIN E. MYERS, Cincinnati, O.

Canalization of the Ohio and Mississippi rivers to produce permanent navigable stages is working great changes in the type of river craft. The old-fashioned "shell" barge, which, in substance, was merely a box with an open top, with shallow bulkheads in the front and in the rear, is to give way to a new freight barge designed by the Emergency Fleet Corporation. The first of these barges are being delivered now for operation on the Mississippi River.

The limiting depth during the low-water season in the Upper Mississippi River is four feet for a wide tow. The barges had to be so designed that they could carry economically low-class bulk freight like coal, ore, steel and lumber, or oil. The limits of length and width imposed by locks and bridges had carefully to be considered also. There are 14 bridges between St. Louis and St. Paul. There are two locks and soon will be three, as an additional lock is being constructed on the Upper Rapids at Smith's Island, a few miles above Moline. All but one of the bridges have clear spans of at least 150 feet, through which three 48-foot barges may be passed abreast.

The length limit at the Moline lock is 300 feet. The problem confronting Mr. Mitchell and those who worked under his direction was that of designing craft which should handle upstream tonnage against rapid currents, and could be operated profitably on a depth of four feet in time of low water in a country whose rail transportation is on a lower ton-mile basis than that of any other country of the world.

The plans which have been developed contemplate the construction of 24 steel barges with double bottoms. These barges will be 300 feet long, 48 feet beam and 10 feet deep, with 8 to 9-foot draft. Such a barge will carry 3000 tons on 9 feet. On a four-foot draft at time of low water it will carry 850 tons. A tow with three such barges would thus carry 9000 tons at high water and 2550 tons at low water. The barges will be built with open cargo hoppers, with the second bottom five feet from the bottom of the barge. The cargo hopper will be 36 feet wide; thus providing a six-foot deck on each side of the cargo space, which will be surrounded by a raised coaming. The barges will be equipped with pipes and pumps, so that they may carry oil in the double bottoms. The location of the great oil fields of Southern Illinois and Louisiana relative to the Mississippi River makes this a desirable feature. Each barge will have rudder and anchors, so that if tandem towing by hawser, as is common practice in Europe, should be required, the equipment will be adapted to it. The barges will be double-enders of what their designer calls a "semi-demi-spoon" shape.

The present standard coal barge on the Ohio River is 135 feet long, 26 feet wide and draws 8 feet. It will carry, at maximum draft, 500 tons. There is also an old type known as "thin sides," 150 feet long, 26 feet wide and of 10 feet draft, that years ago was used to carry coal to the Lower Mississippi River. This coal had a capacity of 1000 tons.

The towboat must meet conditions of a most exacting character. It should furnish 2000 horse-power at high water and carry a day's coal on a draft of three feet. The boat which has been designed to achieve this will be 216 feet long by 58 feet wide. Something of the difficulty of obtaining the requisite power within these dimensions on this draft may be judged from the fact that the towboat Sprague, the most powerful river towboat thus far constructed in the United States, develops approximately the same power on a draft of nearly

seven feet with a hull length of 275 feet and a breadth of 61 feet.

The new towboats will have modern marine engines. The boilers will be water tube or of combination water tube and fire tube type, carrying 250 pounds pressure. "Boilers have usually been the weak point of river steamers," said Mr. Mitchell. "The old, big flue boiler of the ordinary river boat is frightfully overtaxed, being called upon to evaporate as much water on 500 square feet of heating surface as is evaporated by 10 square feet of surface in the ordinary land installation." The new towboats will have the boilers and engines placed about one foot above the water line of the boat, in order to make a low model and save weight. They will be provided with "towing engines" to keep an unvarying stress on the hawsers in towing barges tandem. The wheel will be a stern wheel about 21 feet in diameter. The boats will be equipped with auxiliary rudders at the rear of the wheel. These rudders were borrowed a few years ago from the practice of steamboats of the Yukon and Columbia rivers. Everyone who has ever traveled on a stern-wheel steamer knows the tremendous "flanking" power of the large balanced rudders just forward of the wheel when turned at an angle of 45 degrees and the wheel is revolved backward, throwing the water against the rudders. The boat under those conditions moves strongly sideways and is capable of swinging a heavy tow against the pressure of currents and a strong wind. The auxiliary rudders, placed back of the wheels, give the boat the same steering power when going ahead as do the balanced rudders when backing.

The fleets to be constructed under these plans will have a wider range of operating possibilities than any other river craft ever designed at home or abroad. The barges will be pushed as on the rivers of the Mississippi Valley, or may be towed tandem as in Europe. They may be loaded with oil or with heavy, bulk freight, and will serve for the transportation of any commodity that may be carried without protection from the weather. They will operate profitably on all depths from four to nine feet. The fleets will be constructed of steel throughout, and the towboats will be the most powerful vessels of their kind yet designed. While they will represent a distinct advance upon any equipment now in service, no single detail will be embodied in them whose use is not warranted by the records of actual experience under severe operating conditions.

## A. E. Stilwell's Plan to Pay the Great War's Debts.

A suggestion of how to pay all war debts is made in a book just published in England and written by A. E. Stilwell, who will be remembered in the United States as the promoter of the Kansas City, Pittsburgh & Gulf Railroad (now the Kansas City Southern), and later the Kansas City, Mexico & Orient Railway. His book is called "The Great Plan," and an announcement of its publication says that the mode of paying the war debts proposed by the author has for its basis the savings which would accrue in the world if 100 years of peace can be established everywhere. These savings are estimated at 400,000,000 pounds (something less than \$2,000,000,000) a year. It is assumed that 7,000,000 men will return from the war to the industrial world, and their creative work is valued as low as 10 shillings (nearly \$2.50) per day, so that their aggregate production each day would be 3,500,000 pounds, or about \$17,000,000, so that in 40 years they would have created as much new wealth as the cost of the war.

Thus it is argued: "If the cost of this war is \$10,000,000,000 pounds, the savings by disarmament plus the earning value of 7,000,000 men will during 100 years be two and one-half times the cost of the war," and the plan "anticipates and capitalizes this saving for the benefit of those living." Furthermore, the idea is to carry out the plan by means of a world issue of bonds equal to the total cost of the war to all nations, with a sinking fund which will retire them at the end of the 100 years, these bonds not to be sold, but to be used as a basis for currency, which is to be retired as fast as the bonds are paid off. It is asserted that there is sufficient gold to thus pay off the currency, and that this new cash in the treasury of each nation will enable them to pay off all international war debts in one hour. All war bonds or stock in 15 months, besides providing ample money for two generations to care for the wounded and pay pensions without taxation.

*This pamphlet just published  
should be widely distributed  
and read throughout America  
and the countries of our Allies*



## What Shall Be America's Answer To German Peace Pleas?

In view of the discussion of peace terms that should be meted out to Germany and its Allies, the following editorials from recent issues of the Manufacturers Record and Rev. Dr. Newell Dwight Hillis' superb survey of the whole subject are reprinted to emphasize the need of dictating a peace that will forever stamp out Germanism.

### REV. NEWELL DWIGHT HILLIS, D.D.:

**"The Hour is Big With Destiny—Only Safe Word is Unconditional Surrender."**

RICHARD H. EDMONDS, EDITOR MANUFACTURERS RECORD.

"This Should Be America's Answer to Every Peace Plea from Germany and Her Allies."

"Why Germany Should Be Made to Pay the Cost of the War to All Allies, Which Would Be Far Less a Burden Than the South Had to Bear After 1865."

"Senator Lodge Did Not Go Far Enough."

"The Peace Terms Which We and Our Allies Should Enforce After Our Flags Fly in Triumph Over Berlin, Vienna and Constantinople."

"Unconditional Surrender Before Any Peace Talk."

5 Cents Per Single Copy  
25 or More at 4 Cents Per Copy  
500 or More at 3 Cents Per Copy

Published by  
MANUFACTURERS RECORD PUBLISHING CO.,  
Baltimore, Md.

### EFFORT TO GUARD BUSINESS AFTER THE WAR.

Louisville Board of Trade to Memorialize Congress—Declines to Be Expected—Provision Must Be Made for Shrinkage and Adjustments Following Peace.

Louisville, Ky., October 22—[Special.]—The Louisville Board of Trade has arranged a protest against a clause of the Federal tax bill, claiming in a statement that has just been approved that the Federal plan will bring panic after peace comes. Legislative protection for business against market value contractions that may be expected with the close of the present war is urged by the trade body in a memorial which is being prepared, and which will be sent to Congress in connection with the present war revenue legislation, and which will also be sent to other commercial bodies all over the country. It is urged that there is danger in failure to provide for reserve to cover the decline that may come in present inflated values.

The statement was prepared by a special representative committee, composed of the biggest business men of the city, and headed by William Hepburn, president of the Belknap Hardware & Manufacturing Co., one of the largest jobbing organizations in the country. Other members of the committee are Thomas Floyd Smith, past president of the Board of Trade and National Paper Trade Association; S. B. Lynd, president of the Citizens' National Bank, one of the shrewdest bankers in the Central West; Philip S. Tuley, president of the Louisville Cotton Mills Co., and former president of the Middle States Textile Manufacturers' Association, and Fred W. Keisker, president of Fred W. Keisker & Sons, large furniture handlers. The statement was approved by the directorate of the Board of Trade without change. This statement covers the views of five of the brainiest business men of the city, and should bear considerable weight, as these men are nationally known.

The Board of Trade's statement is in the nature of a comment on the revenue bill before the House, and reads:

#### PROFIT, TAXES AND WAR TAXES SHOULD NOT DISCOURAGE SOUND BUSINESS METHODS.

It is apparent to men who are students of financial and business affairs that one of the dangers to be avoided in the conduct of business is the withdrawal of earnings by dividends or otherwise, that could be and should be used in strengthening and developing a business.

In the average business there is no method of providing additional permanent funds for strengthening it against severe shocks, inevitable at times, other than to retain in the business part of the earnings.

It is most important to determine what amount of money may be safely withdrawn from a business as profits or dividends without injury or threatening injury to the future of the business.

It seems evident that the interest of the Government in determining its taxation policy should avoid, either by compulsion or inducement, the payment of profits to owners, or dividends to stockholders, in excess of the amounts that would fall within the principles above stated.

Nothing could be more unfortunate, in connection with the probable reaction in business that may come with peace, than a commercial panic, and nothing seems surer than that the excessive withdrawals of profits by partners or the excessive payment of dividends to stockholders would result in such panic.

The Board of Trade desires to call attention of the Congress of the United States to the danger of either requiring or encouraging by any provision of the proposed revenue act, in any way, the declaration of dividends or the division of profits, and protests against the provisions in House Bill No. H.R.—12863, providing for a base tax at a higher rate (18 per cent.) on undeclared profits than a lower base rate (12 per cent.) on declared profits.

#### DANGER IN FAILURE TO ALLOW FOR RESERVE TO COVER EXCESSIVE VALUATIONS.

In the present law, taxpayers are required to return earnings for taxation on the basis of either:

First—Their cost value, or

Second—Their market value.

A return on the basis of cost value on stocks bought at different times under different contracts is so difficult that such valuation must at best be estimated, whereas merchants and manufacturers always know the market or replacement value—that is, the producers' prices, and as a solution of the difficulty and to assure themselves of their compliance with the law, have, in most cases, figured their inventory at the market value.

Under the operation of the law heretofore existing, and so far as we know, the law proposed by House Bill No. H.R.—12863, profit taxes are levied on the profits shown to result from the inventories of stocks of materials.

It should be considered that there is now in almost every business an element of risk in the high costs of merchandise and raw materials that will undoubtedly result, on the resumption of peace, in large losses to the holders,

and if this condition is accompanied by heavy indebtedness for merchandise or raw materials, or both, the result is likely to be financial disaster to the holders.

The obvious remedy is that against the excessive cost of such merchandise or materials earnings should be withheld from partners or stockholders sufficient to represent the difference between the present value of merchandise or materials and the prices to which such goods may fall.

If the principle is admitted, the question to be decided is—how far would such a descent in prices go? The answer of experienced people is that on the resumption of peace and competitive internal conditions, prices prevailing previous to the war will return, and whether they return in one month or one year, merchants carrying stocks and manufacturers carrying raw materials and partly manufactured materials will have to make losses on this basis, either on successive turnovers on different goods, or at one time.

Our contention is that the inventory profits resulting from mere advanced valuation in merchandise or materials on hand should not be subject to profit or excess profit taxes or war taxes until realized, and we, therefore, request that the Congress give consideration to the propriety of authorizing a deduction in value of merchandise and materials when inventoried at current market values of a reasonable percentage to cover the probable shrinkage after the conclusion of the war. The percentage should be determined by the average percentage of advance that has occurred in a particular business since the beginning of the European War—say July 1, 1914, and to be effective to prevent serious disaster to many concerns should be equivalent to at least 50 per cent. of the average advance. Such a provision is increasingly necessary as the rates of income, excess profits and war-profit taxes increase.

If the suggestion does not meet with the approval of Congress, it is hoped that the principle be recognized that there should be some provision for the amortization of unrealized profits invested in materials or merchandise before the computation of profit taxes or excess profit taxes or war taxes and such other provisions looking to financial stability and confidence after the war.

In this statement the board clearly lays forth the dangers of declaring profits on or taxing unearned profits which may be wiped out overnight by the final surrender of Germany. Copies of the resolutions have been sent to all of the Kentucky Congressmen and Senators.

The Retail Merchants' Association and other business organizations, including retailers, jobbers and manufacturers, have declared in favor of this statement and the position taken. The strong peace movement of the past few days has brought home a realization of the fact that a reconstruction period is not so very far off, and readjustment to a peace basis is going to be a serious matter, and one that should have been taken up and more forcibly considered some time ago.

### Big Oil-Boring Operations in England.

Machinery for drilling for oil for the navy is being rapidly erected by Lord Cowdray on two sites near Chesterfield, Derbyshire, and operations on the first bore will be begun by American experts in a few weeks.

Lord Cowdray, head of the firm of S. Pearson & Sons, in March offered to spend £500,000 in boring for oil on condition that the work would be protected by legislation from indiscriminate drilling. The Government accepted the offer, appointed Messrs. Pearson as its agents, and passed the Petroleum (Production) Bill, prohibiting persons other than its agents from searching for or getting petroleum in the United Kingdom.

In the meantime Lord Cowdray, to avoid delay, obtained up-to-date machinery and skilled labor from the United States.

An oil-mining expert, when interviewed, said that the cost of drilling a single bore under the most favorable conditions would be between £30,000 and £40,000. Oil in Derbyshire is most likely to be found at a depth of about 2000 feet. A bore for this depth will be started with a hole 15 inches in diameter, finishing up at the bottom at about 6 inches or 8 inches.

It is a most skillful and delicate operation, and any carelessness on the part of the drillers or the breaking of the drill may result in the bore having to be abandoned after weeks of work.

It is hoped to get from the Derbyshire bores a crude oil heavily charged with benzine (motor fuel), paraffin and other valuable by-products, which will be "drawn off" (distilled) before the heavier product is sent to the Admiralty for naval use as fuel.

Lord Cowdray, it is understood, considers the success of the venture to be of such great national importance that he is prepared to spend £1,000,000 on his own account before he will abandon the scheme. At present the entire business and geological staff and premises of Messrs. Pearson have been placed without charge at the service of the Government.

## Livestock Industry in Mississippi Wonderfully Stimulated by Boys' Clubs

[Special Correspondence Manufacturers Record.]

Jackson, Miss., October 19.

Another chapter in the history of Boys' Club work is beginning in Mississippi, and it promises to be every bit as interesting and valuable as the ones that have preceded it.

It was a Boys' Pig Club, assisted by W. R. Ritch, farm demonstration agent for Yazoo county, that made the first co-operative hog shipment from this State and thus opened the way for an industry that now is bringing into the State millions of dollars annually.

Having put this business upon a firm basis, and filled with a spirit of confidence in the youngsters, Mr. Ritch determined to try to put the sheep industry back upon the footing it once was in this section of the South, and settled upon Boys' Lamb Clubs as the surest and quickest way to do this.

Mr. Ritch believes in sheep. He says every farm in Mississippi ought to have at least a small flock.

In 1917, after he had seen the hog business grow from nothing to one of the chief industries in the State, he decided to start lamb clubs. He went to the three banks of Yazoo City and laid his plans before them. They were simple and practicable.

He asked that the banks buy sufficient sheep to furnish two to five lambs to any girl or boy in the county who would agree to take them, give them the proper shelter and the proper pasture. The bankers had had some experience with Mr. Ritch, and their coffers were much fuller for his presence in the county, so they agreed to finance the scheme.

They took the boy's or girl's note, agreeing that it was to be paid out of the sale of buck lambs from the flock, and if the boy or girl wished, out of the proceeds of the wool also.

In January, 1917, 100 ewes were purchased. In October, 1918, a banquet was given for the bankers and the county board of supervisors, at which results of the club were given. Thirteen complete reports from boys and girls were read, as follows:

James Reagan bought six ewes and one buck for \$32.70, sold buck lambs and wool to the amount of \$51.30 and has 10 ewes on hand; Geneva Golden and

two brothers bought 10 ewes for \$54.50, sold \$112 worth, and have 17 ewes on hand; Dallas Vandevere and sister bought 16 ewes for \$114, sold \$206.50 worth, and have 22 ewes on hand; Mary Francis Willoughby bought 5 ewes for \$29, sold \$63.85 worth, and has 11 ewes left; Robert Martin bought 5 ewes for \$29, sold \$50 worth, and has 10 ewes left; Lillian and Catherine Killey bought 10 ewes for \$50, sold \$50 worth, and have 18 ewes left; Monroe Hamberlin bought 2 ewes for \$10, sold \$23 worth, and has 6 ewes left.

Two children entered in the fall of 1917 with these records: Cordelia Coker bought two ewes for \$16.30, sold \$32.10 worth, and has six ewes left; William Clark bought 10 ewes for \$125, sold \$121 worth, and has 16 ewes on hand.

In all, 54 ewes were reported on in the first group. The net profit from these was \$282, and there has been an increase from 54 to 94. In the second group 13 ewes were reported upon. The net profit from these was \$20.35, and in one year they have increased from 13 to 22.

After these reports were laid before the bankers, and it was found that in nearly every instance the first year's yield had more than paid for the original investment, the bankers agreed to set aside \$2000 for the club work in 1919, and this amount will be invested in ewes as rapidly as they can be well placed.

No difficulty has been found in selling the lambs at excellent prices, and the wool, too, has brought good returns.

Concerning the lamb clubs, Mr. Ritch says:

"This has been one of the most profitable demonstrations I have ever given. I had the pleasure of pleasing the banks so well that they agree without any argument to lend me \$2000 for the work next year.

When we cover the foothills of Yazoo with sheep, the tablelands with cattle and the Delta with long-staple cotton, then old Yazoo will be one of the greatest counties in the South."

Mr. Ritch prefers the Southdown and Shropshire varieties of sheep as being best suited to the South.

### New Source of Rubber Reported from Mexico.

Monterey, Mexico, October 15—[Special.]—Growing wild and in great profusion over a vast area of territory in the States of Chiapas, Campeche and Tabasco, in far Southeastern Mexico, is a wonderful rubber-producing plant, which is to be put in commercial use. Some time ago an official report of the rubber properties of this species of vegetation was made to the Mexican Government. It is in that region also that a number of Para rubber tree plantations were established some years ago. Revolutionary troubles caused most of these properties to fall into a state of neglect, but in a few instances the trees have done well and are now yielding caoutchouc in considerable quantities. It is stated that the newly-discovered source of rubber supply is a tropical plant and reproduces itself from the roots within a few months after cutting. It is an entirely different type of plant from the guayule shrub, which grows wild in the more altitudinous portions of Northern Mexico, and is being commercialized for its rubber properties on an extensive scale.

James T. Forney, an old American resident of Mexico, who owns a large cocoa plantation near Tuxtla Gutierrez, State of Chiapas, has constructed a large plant for extracting rubber from the new growth. He says that the plant is in the nature of a vine that not only spreads itself over the ground, but clammers over large trees in the densely wooded region of the tropics. During a visit to Monterey, where he placed an order for additional machinery for his rubber extracting plant, Mr. Forney said:

"This remarkable vine has the same general appearance of the lianes which are found in most tropical regions. The discovery of its rubber content was made quite by accident. Chinese laborers who were working on a plantation not far from me found that by weaving the vines into a sort of hammock they were able to obtain an elasticity that was not to be had by using

other kinds of vines. The elasticity of the vines is specially notable if they have been cut for some time and the rubber sap allowed to harden.

The attention of the owner of the hacienda was called to the peculiar properties of the strange vine. Upon investigation the vine was found to carry a high percentage of pure rubber. It amounts to about 20 or 25 per cent. of the weight of the vine, and is so strong that upon breaking the wood the rubber still holds.

"In other rubber plants, as far as the known varieties are concerned, there is so much resin and essential oil in the rubber that it is not elastic at all until extracted and treated. It is more of a viscous sap like that of the fig tree. In the new vine, however, there appears to be a total absence of essential oil and resin."

### New Quicksilver District Opened in Texas.

Terlingua, Texas, October 18—[Special.]—Development operations in a new quicksilver district, situated 40 miles east of here, and about 75 miles from the nearest railroad point, are now in progress. Rich cinnabar ore was discovered in that locality about three years ago, but for some reason there was a delay in beginning development work. It is stated that the Ellis Quicksilver Co. is now mining considerable quantities of cinnabar ore in the new district and that plans are being made by the owners of other claims to install equipment for taking out ore.

In the Terlingua district an increase of quicksilver mining activities is noted. The producing district has been widened by the Study Butte Mining Co. which is developing a good producer of cinnabar ore five miles east of here. The company is now installing a new power plant and oil engine. Two miles further east than the mine of the Study Butte Mining Co. is a large outcropping of cinnabar ore that is being successfully mined by the open-cut method by the Mariposa Mining Co.

Point Isa...

Point Isa...  
long years  
Point Isa...  
Grande, is  
Tampico, Ma...  
two ships o...  
regular car...  
pico, Mexic...  
is preliminary  
to other G...  
Mexico. Sh...  
Government...  
ing the por...  
inaugurated  
several mor...  
subscription...  
by engineer...  
proximately  
the valley  
amount, and  
in their pl...  
structed he...  
In days i...  
important i...  
connection  
lines of ste...  
ports, bring...  
part of Nor...  
In 1863 a...  
ness inter...  
structed wh...  
between Poin...  
years later  
from Mata...  
Grande to  
lines of rail...  
came throu...  
Railroad w...  
and manag...  
type of loco...  
coaches we...  
of transpla...  
its official r...

Since the  
& Mexico b...  
deepened, i...  
claimed the  
business in  
short time

Matamoros  
of Mexico  
across the b...  
development  
stream that  
ries. App...  
been broug...  
towns have  
quality in  
will be ma...  
the Rio Gr...

The Br...  
deepened, i...  
claimed the  
business in  
short time

Atlanta,  
opening up  
sea count...  
Carolina.  
result from  
which to c...  
the imme...  
ected to  
by settler...  
whom will  
been won.

The Go...  
cutting ou...  
building a...  
hundreds  
prosperity  
the timber.

One of  
with the  
extensive  
money wi...  
which, whi...

**Point Isabel, Tex., to Again Become Deep-Water Port.**

Point Isabel, Tex., October 26—[Special.]—After long years of abandonment, the deep-water port of Point Isabel, situated just above the mouth of the Rio Grande, is to be soon restored. The Brownsville & Tampico Marine Transportation Co. has just purchased two ships of small tonnage which are to be placed in regular cargo service between Point Isabel and Tampico, Mexico. The establishment of this coastwise line is preliminary to extending the transportation service to other Gulf coast ports of the United States and Mexico. Slowness on the part of the United States Government in awakening to the importance of improving the port facilities here caused a movement to be inaugurated by the people of the Rio Grande Valley several months ago to provide by means of private subscriptions a fund for deepening the Brazos de Santiago channel, leading to Point Isabel. It is estimated by engineers that this improvement work will cost approximately \$125,000. The different communities of the valley region immediately set out to raise this amount, and it is announced that they have succeeded in their plans. Already a new wharf has been constructed here.

In days gone by Point Isabel was one of the most important ports on the Gulf coast. Before railroad connection with the outside world was obtained regular lines of steamships plied between here and Atlantic ports, bringing in and taking out cargoes, serving a big part of Northern Mexico and Southern Texas.

In 1868 a syndicate of Spaniards who had large business interests in Brownsville and Matamoros constructed what is called the Rio Grande Railroad between Point Isabel and Brownsville, 22 miles. A few years later American interests constructed a railroad from Matamoros down the Mexican side of the Rio Grande to San Miguel. These two short and isolated lines of railway for many years handled the traffic that came through the port of Point Isabel. The Rio Grande Railroad was one of the most unique in its rolling stock and management in the United States. Its primitive type of locomotives, its little freight cars and passenger coaches were brought from Spain, and it was a piece of transplanted Spanish railway in every respect. Even its official records were kept in Spanish.

Since the construction of the St. Louis, Brownsville & Mexico Railroad, which gives Brownsville an outlet to the north, and the connecting up of this line with the Matamoros-Monterey branch of the National Railways of Mexico by the building of an international bridge across the Rio Grande wonderful strides of agricultural development have taken place in the lower valley of the stream that marks the boundary between the two countries. Approximately 300,000 acres of rice land have been brought under irrigation. Many new and thriving towns have sprung up. With the restoration of tranquility in Mexico it is expected that similar progress will be made in utilizing the rich lands on that side of the Rio Grande within the next few years.

The Brazos de Santiago channel, which is to be deepened, is about two and one-half miles long. It is claimed that the saving of freight to the farmers and business interests of the lower valley will in a very short time more than repay the cost of dredging the channel.

**Proposed Timber Operations Would Open Large Area to Settlement.**

Atlanta, Ga., October 26—[Special.]—The general opening up of a large section of country lying in Jackson county, North Carolina; Oconee county, South Carolina, and Rabun county, Georgia, is expected to result from the search of the Government for wood with which to carry on the prosecution of the war. One of the immediate benefits of this vast enterprise is expected to be the settlement of this large tract of land by settlers from all sections of the United States, among whom will be many soldiers returning after the war has been won against German militarism.

The Government is just now engaged in plans for cutting out 1,000,000,000 feet of timber for use in shipbuilding and other enterprises. In this work many hundreds of men will be employed, and unprecedented prosperity is expected to accompany the development of the timber resources.

One of the principal things to be done in connection with the Government's enterprise is the opening up of extensive highways, and a considerable amount of money will be expended in improved highway construction, which is expected to be permanent.

## *Our Cover Page Editorials*

PUBLISHED UNDER THE TITLE OF

## *"War Eagle Series"*

Have been given the warmest praise in letters received by us from leaders in civil and military life, not only in America, but in England, France, Belgium, Italy, New Zealand, Australia.

The limited edition first published having been exhausted, we have had a second edition printed, and copies are now available.

The series contains twelve of the Cover Page Editorials taken from the MANUFACTURERS RECORD, beautifully printed on cards 9 $\frac{1}{4}$  x 12 $\frac{1}{4}$  inches, enclosed in portfolio envelopes. They will be mailed by us, or can be sent to you for remailing with your own complimentary card or letter.

Many of these editorials have been used in the Fourth Liberty Loan Campaign by the loan committees of various cities, and have been hung up in offices, factories, munition plants, and used by public speakers. They have served in many ways as an inspiration to those carrying on the many tasks contributing toward the winning of the war.

**Complete sets of twelve cards in envelopes,  
\$1.25 per set** **Payable with order**

**MANUFACTURERS RECORD PUBLISHING CO.  
BALTIMORE, MD.**

# Potash Potentialities Being Investigated by Government

[Special Correspondence Manufacturers Record.]

Washington, D. C., October 26.

Somewhat more encouraging than accurate was the statement recently appearing in the daily press to the effect that the supervision of potash production in the United States had been undertaken by the War Industries Board, and that prices were shortly to be fixed in agreement with the industry.

Personal investigation by the MANUFACTURERS RECORD correspondent developed the fact that this and similar statements were largely anticipatory of results that may yet be reached by the Government. It is true that, under the terms of the war minerals bill President Wilson has power to direct marked extensions in any of the industries named therein as war necessities may require. It is also true that the question of adequate potash production is one of the most important at the present time, and that the whole question has been turned over to H. G. Carrell, chief of the alkali and chlorine section of the War Industries Board, for such action as may seem proper.

"Government activities at the present moment are in a state of flux as regards this industry," said Mr. Carrell to the MANUFACTURERS RECORD correspondent. "As is generally known, there are inherent difficulties connected with the whole situation. The matter of production costs is one of these, not so much as it relates to present prices as it does to prices which will prevail after the war.

"What the War Industries Board is doing now is to tackle one step after another as the various propositions come up. It has already made a survey of the cement possibilities at a meeting held by the board members with the cement manufacturers early in October. We will hold meetings with the blast furnace operators for the same purpose, probably in November.

"In both cases the intention is to urge them to find out what they can do in the way of turning out potash, both as a manufacturing and business proposition. Those engaged in the cement industry, in which the most has thus far been accomplished, are the most hopeful of results, not only for the present, but also for post-war production. But all have been asked to look at the problem from the viewpoint of considering their industry as a national industry, rather than as an individual industry, and to attack all features of the problem in that light."

The general idea suggested by Mr. Carrell was that the cement and blast furnace men would be encouraged to go ahead to the utmost where they felt reasonably sure of success. It was indicated that not a great amount of capital was required in any of the ventures, and that the War Industries Board will expect the industry concerned to find this capital by combining its resources where necessary. Mr. Carrell, in looking at the subject purely from an industrial standpoint, said that it was all a question of what could be done in times of peace. War prices, he indicated, were one thing with regard to which no apprehensions existed; peace prices, however, will prove to be another and quite different proposition, and it was in connection with them that all ventures would have to be weighed carefully to see whether they would stand the coming test. For this reason the War Industries Board will not branch out extensively into investigations of new sources of potash or new processes for its recovery. It will rather demand, in the latter respect, complete technical demonstration of the feasibility of suggested processes before giving them any encouragement.

Asked as to tariff possibilities, Mr. Carrell said that it may be found desirable or necessary to impose a duty on potash imports sufficiently high to protect the domestic industry from being destroyed. That, however, he intimated, was a matter that rested with Congress to determine. As to the provisions of the war minerals bill with respect to change in duties, he indicated that they were intended largely, if not exclusively, to protect the Government in its contracts and investments. When it is considered that in the case of potash practically the sole Government use is in the manufacture of black powder, and that but a small percentage of the total potash consumption in this country is taken up in that way, the probability of tariff regulation under the terms of the war minerals bill become quite remote.

One of the possible sources of potash which has received considerable attention of recent months is that of the green sands of New Jersey. These "glaucous" deposits are said to contain on an average about 7½ per cent. of K<sub>2</sub>O. While they have been known to possess potash in working quantities for a number of years, it was not until the war that their utilization in a practical commercial manner was given consideration. Experimentation has led to definite plans for development, and it is known that the organization of a company with a capital of \$7,500,000 is now being planned. Much will depend upon the attitude of the Government toward the proposition for its success. Necessities for the advancement of the plans require assurance that there will be granted priorities for the materials required. Waivers regarding further developments in the so-called congested areas must also be granted, and the necessary permission to erect large buildings must be forthcoming. All these rest in the hands of the agencies of the Government to determine.

The possibilities of potash recovery from these green sands are remarkable, according to some of the figures given out. It has been estimated that enough potash is to be found in them to last for thousands of years, one estimate placing the amount at 2,034,000,000 metric tons, or enough to last 4000 years. These figures have not been checked by experts of this Government, but officials of the Geological Survey are inclined to accept them as approximately correct. The sands lie on the surface and extend downward in places to a depth of 30 feet or more. They run through New Jersey, Delaware, Maryland, Virginia, North Carolina, Tennessee and Arkansas, but it is only in New Jersey that they appear to contain potash of any workable commercial value. In many cases the sands are easily mined with the use of a steam shovel.

The methods of treating the green sands are either by digesting them with lime under steam pressure or roasting with salt and lime, leaching the product and then evaporating the liquor to obtain the potash salts. The latter process is quite similar to that employed in cement manufacture, except that the heat is not sufficiently strong to volatilize the K<sub>2</sub>O. Both processes have been tried on a commercial scale, and both claim to be able to produce potash at a cost of production which will enable the manufacturers to compete with German potash.

Considering the development of the industry as a whole, it is encouraging to know that the Government experts do not think any development of processes of recovery in the Eastern and Southern States will have the effect of injuring the commercial enterprises now being conducted in the West, as in the Nebraskan lake brines and at Seales Lake, California. The view is held that, while by far the greater part of the potash used in the United States is consumed in the southeastern portions of the country, there will nevertheless be a large enough demand in the West to absorb the output of the Western sources of supply.

## Southern Landowners' Convention.

A meeting of land owners in the South is to be held at Savannah, Ga., on November 11 and 12, at which Secretary Franklin K. Lane of the U. S. Department of the Interior is to speak on the first day of the meeting, according to the announcements, and to state his definite policy concerning land settlement and land utilization in the future, and also the Government's definite policy with respect to the returning demobilized soldiers.

The meeting, which will embrace interested land owners from the south side of Virginia to the eastern part of Texas, is to be held under the joint auspices of the Southern Settlement and Development Organization, Baltimore; the Cut-Over Land Department of the Southern Pine Association of New Orleans, the Georgia Land Owners' Association, the Florida Cattle Tick Eradication Committee, and the North Carolina Land Owner's Association. A very large attendance is expected.

One of the subjects to be considered and discussed is that of sheep raising in connection with plans for settling and developing unimproved lands.

## Development of Domestic Sources of Potash.

The Committee on Fertilizers of the Chemical Alliance, Inc., has issued the following bulletin:

"In an announcement recently made by the United States Department of Agriculture, Office of Information, the department states its views that this country should develop supplies of potash. The announcement is as follows:

"At a conference on the American potash situation, held October 15 in the office of William Wallace Young, assistant to the Secretary of Agriculture, in charge of fertilizer control, it was stated that the view of the Department of Agriculture is that the Government should do all that is possible to encourage the production of potash from the cheapest sources in this country in order to enable farmers to obtain it at a low price, because foreign supplies are now unavailable.

"Some of the domestic sources of potash that may be further developed are blast furnaces, from the fumes of which potash-bearing materials may be precipitated. Cement mills, greensand, certain shales, the brines of some lakes, mostly in Nebraska, and the giant seaweed (kelp) of the Pacific Coast.

"The domestic production of potash for the coming year is expected to be about 60,000 tons, much more than the previous year, but still only about one-fourth of the annual pre-war consumption, according to A. W. Stockett of the Bureau of Mines.

"Representatives of the Bureau of Plant Industry of the Department of Agriculture pointed out that certain crops in the East are showing unmistakable signs of 'potash hunger,' and the general agreement at the meeting was that farmers should be informed of fact bearing on the value of potash for crop production and that all efforts should be made to supply the farmer's demand.

"The purpose of the meeting was to promote free discussion among the different interests involved in connection with the potash situation. R. C. Waring, special assistant in fertilizer control, presided. Others who took part in the conference were: Charles H. McDowell of the War Industries Board; Dr. Oswald Schreiner, W. A. Orton and H. A. Edson of the Bureau of Plant Industry; Dr. A. C. True, Bradford Knape and C. B. Smith of the States' Relation Service; F. H. Brown, A. R. Merz and J. W. Turrentine of the Bureau of Soils; A. W. Stockett of the Bureau of Mines; W. D. Huntington of the Davison Chemical Co. and Frederick Rayfield of Swift & Co., representing the Chemical Alliance; George A. Lee and T. E. Stevens, representing the Nebraska Producers, and E. A. Goldweiser, statistician in fertilizer control."

## More Than 100 Houses to Be Erected by Chicago Company at West Ghent, Norfolk.

An important enterprise looking to the erection of a hundred or more houses at Norfolk has been launched by the North Shore Improvement Co., 25 Dearborn street, Chicago, which has purchased approximately 300 lots in West Ghent and is under contract to improve as fast as the buildings are sold. The company expects to break ground about November 1 for 25 buildings, mainly of the two-flat type apartments. The remainder of the proposed building program will be in accord with the recommendations of the United States Housing Corporation, Otto M. Eidlitz, director, 613 G street N. W., Washington, which will stipulate, in giving priority orders for building material, the class of construction which will accommodate the greatest number of people connected with the army, navy and other activities in and around Norfolk.

The buildings presently to be constructed will cost from \$6000 to \$10,000 each, financial arrangements having been made with the Guaranty Title & Trust Corporation, Norfolk, which has granted 25 loans aggregating \$175,000.

The company also contemplates soon to begin the erection of larger apartments of the kitchenette and unit type.

The Indian River Farms Co., which has 45,000 acres of lands near Vero, Fla., is, according to a report from Fort Pierce, Fla., moving its headquarters from Davenport, Iowa, to Vero, closing the offices at Davenport. Many farmers have already settled on the farms.

October 31, 1918  
Furnaces  
Birmingham  
estimates  
up the p  
year. T  
shipped  
spectors  
mainin  
cilities e  
iciency of  
apped th  
een mos  
Even lim  
in some  
showing  
The frun  
was expe  
of the ye  
producti  
berthoford  
district re  
in readin  
There is  
until the  
With the  
ing on m  
be warrant  
Iron st  
is not mu  
the remov  
noticeable  
and furn  
some old  
ment. T  
time has  
this distr  
but to pr  
crease the  
Some of  
tials, are  
to shut o  
hold of se  
pat in t  
Governme  
practically  
for iron.  
allocation.  
While  
to work o  
from ma  
have ma  
essentials  
Co. in Bi  
with ord  
many me  
this distr  
pipe, tho  
for pipe,  
foundries  
trict buy  
There is  
have bee  
domestic b  
going.  
The co  
est mark  
October  
32, 33, 34  
October  
5. The t  
but a ch  
penter ha  
ager for  
the Fuel  
to look a  
on and b  
but a cle  
An ins  
ing the p  
rector-G  
stration,  
country,  
and rive  
and barg  
De Bard

### Furnace Output in Alabama Not Up to Expectations.

Birmingham, Ala., October 28—[Special.]—Allocations of basic iron through Government sources to the Birmingham furnaces add to the burdens here, and estimates are now to be heard of that will almost take up the probable make for the first half of the coming year. There is still much iron being produced and shipped for export purposes, English and French inspectors being in the district, with prospects of remaining here for some time. In addition to the difficulties experienced by reason of shortage and inefficiency of labor, the influenza epidemic further handicapped the iron business. The raw-material supply has been most uncertain for the last two weeks and longer. Even limestone or dolomite has been exceedingly short, in some instances not more than a half dozen men showing up for work some days in these industries. The furnace output in Alabama is disappointing. It was expected that October would be a banner month of the year. Instead, it will be considered good if the production is up to that of the previous month. As heretofore announced, there are several furnaces in this district ready for the torch right now, or can be gotten in readiness for operation within a very short while. There is further disinclination to start these furnaces until the raw-material supplies are more definite. With the uncertainties of labor and the epidemic holding on more or less, there is no telling when there will be warrant for resumption at these furnaces.

Iron stocks in the South are further reduced. There is not much foundry iron being manufactured now, and the removal of the product from the yards is becoming noticeable. Inquiries continue to come in every day and furnace companies are compelled to turn down some old-time friends, referring them to the Government. The peace talk that has been rampant for some time has not in the least disturbed the iron market in this district. There is simply nothing else to do here but to produce and ship the product. All efforts to increase the production have been without success so far. Some of the consumers, not working on positive essentials, are indicating apprehension that they will have to shut down for the time being unless they can get hold of some iron. While a scarcity of iron was anticipated in many directions, it was not expected that the Government control would be so strong as to cut off practically all iron. Priority orders must be obtained for iron. These orders must be sandwiched in between allocations, if possible.

While much has been said of plants being compelled to work on essentials, there are inquiries being received from many plants. However, many of these plants have made conversions in their operations to produce essentials. For instance, the Stockham Pipefittings Co. in Birmingham is working on steel shapes for ships, with orders in hand that will provide operation for many months to come. The cast-iron pipe plants of this district are also working on other products besides pipe, though the Government is sending in some orders for pipe, for use at cantonments and elsewhere. All foundries and machine shops of the Birmingham district have more or less Government work in hand. There is no doubt that after the Government contracts have been filled and there are no other available, domestic business will be sufficient to keep the plants going.

The coal production in Alabama is down to the lowest mark since previous to July. For the week ending October 19 the coal production in Alabama went to 323,310 tons, against 382,846 tons the week ending October 12, and 409,022 tons the week ending October 5. The tonnage for the past week will be lower still, but a change for the better is now in sight. A. H. Carpenter has been appointed assistant production manager for Alabama, under Judge H. C. Sellheimer, in the Fuel Administration work, and it will be his duty to look after the coke production, to urge the workers on and bring about not only a larger output of coke, but a cleaner production.

An inspection was made of the Warrior River during the past week by G. A. Tomlinson, Assistant Director-General of the United States Railroad Administration, in charge of the inland waterways of the country, and other officials, including naval architects and river engineers. In addition to the old towboats and barges of the Pratt Consolidated Coal Co. and the Bardeleben Coal Co., now under repairs, it is in-

tended to establish a service on the river between Cor- dova, Ala., and Mobile and New Orleans that will not only be able to handle coal and coke, but other products as well. Theodore Brent, traffic manager on the Mississippi-Warrior rivers, was here also the past week conferring with large shippers in regard to freight rates on the river. There is an inclination to maintain railroad freight rates on the stream, to which there is to be a protest raised. Assistant Director Tomlinson has intimated that new equipment, and a sufficient amount of it, will be contracted for at once and put into service, and prospects are bright for a good service by late spring of next year.

Scrap iron and steel is moving steadily in this district, and the announcement is made that several contracts are in hand, and much old material will be needed to fill them. The influenza epidemic is still felt, though health authorities announce the disease on the wane.

New sales made recently are nearer the maximum Government quotations than ever before. Heavy melting steel, No. R R wrought and No. 1 cast are the prominent commodities of old material in this district, and the consumption is very steady.

Quotations of pig-iron and steel in this district are as follows:

#### PIG-IRON.

No. 2 foundry, \$34 f. o. b. furnaces, Birmingham basing point. Differentials as to silicon same as before. Basic iron, \$33. Next revision in prices January 1, 1919.

#### OLD MATERIAL.

Old steel axles.....	\$38.00 to \$40.00
Old steel rails.....	29.00 to 30.00
Heavy melting steel.....	27.00 to 28.00
No. 1 railroad wrought.....	31.00 to 32.00
No. 1 cast.....	31.00 to 34.00
Stove plate.....	25.00 to 26.00
Old car wheels.....	29.00 to 30.00
Old tramcar wheels.....	27.00 to 29.00
Machine-shop turnings.....	16.00 to 17.50
Cast-iron borings.....	17.00 to 19.00

### Features of Kentucky Oil Field Development.

Beattyville, Ky., October 26—[Special.]—Within the past few weeks the center of interest in Kentucky petroleum development has shifted into Lee county, around Beattyville, although many good producing wells have shown up in Estill county, around Irvine; in Breathitt, around Jackson; around Campton, in Wolfe county, and around Stanton, Powell county, while much important new territory is being developed in Johnson, Magoffin, Martin and Floyd and Knott counties, along the headwaters of the Big Sandy River. The Beaver Creek field has also proven an important territory both in oil and gas, a number of good strikes having been made in that section.

Near Prestonsburg, in the Beaver Creek territory, the Great Central Oil & Gas Co. struck a good producer this week. The well was struck in the Wier or gas sand, this being the first petroleum well found in this formation in Kentucky. In West Virginia, however, the Wier sand shows up rich wells. The Eastern Gulf Oil Co. is also developing in the Beaver section, having struck three paying wells recently. In that territory the Big Bear Oil Co., composed of Wyoming interests, are acquiring new properties and make the announcement that a drilling campaign will be launched at once.

No less than a dozen oil wells are going down in the Beaver territory. The Louisville Gas & Electric Co., Louisville, Ky., have had representatives in that territory negotiating for their gas supply. If deals are made, pipe lines will be built into the territory the coming year.

In this (Lee) county strikes of from 200 to 300-barrel wells daily are so common that they are only of passing interest. Rarely a day passes that there is not some rich strike. The Carter Oil Co. struck a 300-barrel well on Thursday of this week on the Pendergrass lease near Beattyville. In the Ravenna district the Tidal Wave Oil Co. struck two good-paying wells on Tuesday. They are putting down several more wells. The Seaboard Oil Co. and the Ohio Oil Co., composed of Ohio people, are developing large tracts in Lee county, near this city. The Stanton Oil Co. struck a 300-barrel well on Ross Creek, in Estill county. On a mineral-coal land tract in Lee county the Trinity Oil Co. struck a 100-barrel well at a remarkably shallow depth. The company is making some extensions.

Judge James P. Lewis of Whitesburg and others organized the Star Oil Co. a few days ago with offices in

Lexington. The company has a capital of \$90,000. They will make developments in Eastern Kentucky.

A number of other new companies are being organized in the Kentucky petroleum field. Indications point to much activity in drilling work before the advent of bad weather.

### BARGE SERVICE SUPPLEMENTING RAIL LINES.

#### \$6,000,000 Contract for Forty Vessels of 2000 Tons Each and Six Towboats.

It is announced from Washington that the United States Railroad Administration, which controls the transportation facilities of the country, has awarded contracts for six towing steamers and forty steam-propelled barges to be used on the Mississippi River and the Black Warrior River. The total contract price is \$6,170,000. Deliveries of the vessels are to start within two months after the necessary steel is received by the builders, and they are to be completed within 12 months.

It is stated that 25 of the barges will be built by the American Bridge Co., New York, and 15 by the Dravo Contracting Co., Pittsburgh. The Charles Ward Engineering Co. of Charleston, W. Va., will build two tunnel screw towboats, and the Marietta Manufacturing Co. of Point Pleasant, Ohio, will build two tunnel screw towboats and two stern-wheel towboats. The tunnel screw boats will be each 200 feet long, 40 feet beam and 6 feet deep; the stern-wheel boats will be 256 feet long, 48 feet beam and 8 feet deep. Each barge will carry 2000 tons, with a draft of 8 feet.

A report published in the Mobile Register says that it is improbable that any of these vessels will be used on the Black Warrior River; that they are said to be large for service in its waters, and that other vessels, to be either commandeered or built, will provide service on that stream. M. J. Sanders is Federal manager for the service on these two rivers.

Barge and towboat transportation has already begun on the Mississippi, but thus far the capacity of the service is very limited, only about 3000 tons a week being carried, the equipment which is being used being that which the Government has been able to find available. One towboat and two barges which began the service from St. Louis a month ago to New Orleans have completed a round trip. One barge carried Mexican hats and coffee back to St. Louis, the other nitrate, this latter being received from Chile via the ship Faith, the first concrete ship to arrive from there.

#### \$2,000,000 Water-works Contract Awarded.

A contract has been awarded to the Ulen Contracting Co. of Chicago and New York by the Emergency Construction Co., Portsmouth, Va., to improve the Portsmouth, Berkley and Suffolk water supply system at an estimated cost of about \$2,000,000. The job includes raising the dam at Lake Cohoon 13 feet, increasing the powerhouse capacity and also the capacity of the filtration basins, laying a 30-inch pipe from Suffolk to Portsmouth and new supply lines under the river at Norfolk, etc. The contractor will immediately erect a temporary office, together with shop and barrack buildings, at the site of the work, its general offices in connection with this contract being in the National Bank of Suffolk Building and construction force offices in the Law Building at Suffolk, Va.

This is in execution of part of the Government's plans recently described to improve the public utilities around and adjacent to Hampton Roads. Captain Moore, R. H. Gordon and H. Q. Kennedy, U. S. A., will supervise the construction.

### Important Concrete Pier Work at Pensacola.

F. G. Proudfoot & Co., contractors, Pensacola, Fla., are constructing a pier and quay wall for the Navy Department at the Pensacola Navy-yard. This work is unique because it has, as part of the construction, 50 and 55-foot reinforced concrete sheet piles, 18x24 inches in section. The contract total is about \$700,000, and the work includes some very interesting features in both design and construction.

This is a double concrete pier 581 feet long and 60 feet wide, with railroad track on both sides. The construction is timber and concrete, earth filled. Some creosoted wood piling is also employed. The pier will act as a breakwater, and it also will protect the airplane hangars.

## WOODEN SHIPBUILDERS MUST LOOK TO PRIVATE CONTRACTS.

### Shutting Off New Shipbuilding Work Now Proposed.

Washington, D. C., October 26—[Special.]—The revision of the Government shipbuilding program, with the cancellation of all contracts for wooden ships which will run into the year 1920, has been announced as the first step toward adapting the shipbuilding industry to the needs of post-war conditions. That the curtailment of the steel shipbuilding will come next is stated by officials of the Shipping Board.

Instead of being a blow at the wooden shipbuilding industry, officials see in the failure of the Government to make contracts past 1919 an opportunity for the yards released from Government orders to begin the work of private shipbuilding when it may be possible to secure more advantageous agreements. It is probable, too, that American shipyards, with their facilities created to meet the war needs of the country, will be able to build ships for foreign nations, and the wooden yards will be in demand for creating coastwise vessels, or ships for the West Indies and Latin-American trade.

It was agreed at conferences some months ago that the war program would have to be thoroughly revised when consideration of contracts for 1920 were taken up, and the moment appears to have arrived.

"The time has come," Chairman Hurley of the Shipping Board says, "when we must begin to ease up. This easing-up process must be applied to steel ships as well as wood ones, but as the number of wood ships already completed, added to the number contracted for, which will be constructed, will fill the demand for ships of that kind, we are curtailing production beyond that point."

Director-General Schwab, in explaining the shipping situation, states that the country is no longer striving to meet an emergency, but is preparing for permanency of production.

Indications are that ship production has about reached the crest, and the danger of overdoing it must be avoided. With consideration of the reconstruction problems comes the question as to what is to be done with the fleets built for the war. With the cessation of the submarine activities and the rapid production of the shipyards, it will not take long to restore the world's tonnage to normal. The question will then arise as to further ship production and the whereabouts of the cargoes which are to fill the vessels.

Recent reports to the Shipping Board show that nearly 400,000,000 feet of yellow-pine lumber have been cut and transported to the shipyards of the Atlantic and the Gulf coasts for the construction of wood vessels, or enough to make a floor 25 feet wide, one inch thick and 3000 miles in length. The bridge to France could thus have been built with the yellow pine, leaving about 4,000,000 feet to spare, as well as the tremendous amount of lumber shipped to the Pacific coast shipyards. All the lumber together would have made the bridge 50 feet wide.

A large proportion of the yellow pine used in shipbuilding has been from the belt running through Texas, Louisiana, Mississippi, Alabama, Georgia and Florida. Many railroad extensions were necessary to bring out the timber from this area, the average rail haul being approximately 20 miles.

This great source of timber supply will continue to yield wood for building ships, and, although the Shipping Board does not intend to enter into any more contracts for wooden ships, unless some unforeseen circumstance should arise, officials express confidence that the industry which has been created and the shipyards which have been built up to meet the national emergency will not languish under peace, but will continue to turn out vessels upon private contracts.

### We Hope So.

The Sandhill Citizen,  
Southern Pines, N. C., October 12.

#### Editor Manufacturers Record:

I enclose check for \$5 for MANUFACTURERS RECORD for one year. The Sandhill Citizen is \$1.50, and I understand we pay the difference, which we are very glad to do. The MANUFACTURERS RECORD is surpassing itself and all other records. Can't get on without it for inspiration and facts.

H. E. Foss.

## League of Valley Cities for Latin Trade After the War.

New Orleans, La., October 23—[Special.]—With the entire Mississippi Valley turned into a seaport by the Government's line of barges that will give Memphis, St. Louis, Chicago and other "inland" points lighter connection, so to speak, with ocean tonnage, plans have been launched for a league of the valley cities to make a conquest of the Latin-American trade after the war.

Mexico, Central and South America, as has been said repeatedly, are natural affinities of New Orleans, both socially and economically. New Orleans is essentially a Latin city in feeling. Commercially, it is a thousand or so miles nearer than any other port that could handle the business. And it is the natural confluence of the commerce of 41 per cent. of the United States.

While the form of organization and the methods of operation have not yet been worked out, the general plan has already been approved by many of the larger producing and jobbing centers, including St. Louis, Chicago and Peoria.

The purpose of the league would not be to stifle competition between individual firms, but rather to furnish facilities for trade expansion, such as the names of merchants in foreign countries, credit ratings, methods of doing business, conditions in the various foreign markets and similar practical service.

Another important part of the work would be keeping foreign markets informed of conditions in the valley, its advantages and opportunities.

"St. Louis, Chicago and Peoria are especially anxious to get the work started," said A. J. Boylan, assistant general manager of the New Orleans Association of Commerce, just back from a trip of propaganda work.

"The cities of the valley in general are awake to the necessity of preparing now if they expect to hold their own in the strenuous foreign trade competition that is sure to come after the war. And they realize that with the Mississippi River in use again they have advantages that compare more than favorably with those of any other producing center in the world."

The plan for the league of valley cities fits in ideally with the work now being done by the United States Department of Commerce to encourage national preparation for after-the-war trade competition.

"Any present attempt," as a department report just issued says, "to lay down complete and binding policies regarding the future is now recognized as a waste of effort. What is more important is the assembling of facts, taking the basic step to improve our educational, research and promotive organizations and contributing to clear thinking on the questions involved. Sooner or later we must have a definite program in which work and plans for the future based on known conditions affecting our future may be co-ordinated. The time is now ripe for some more centralized, concerted work to that end," for "England, France, Italy, Germany and Austria are making preparations to resume their peaceful economic life, with improved facilities for foreign trade, with a national supervision of the use of natural resources for the benefit of their own citizens, and with assistance from the State."

Some of America's facilities for after-the-war trade are: The huge merchant marine, now building; the Webb-Pomerene export trade act, authorizing exporters to combine for foreign trade, and the leeway in foreign trade banking now enjoyed by the Federal Reserve Board and Banking System.

But governments, like Providence, help those who help themselves. The proposed league of cities is the commercial challenge of the valley.

### Wants to Sell Gypsum Sulphur.

J. W. MCRAE, Rice Hotel, Houston, Tex.

In looking over odd files I find frequent mention of sulphur as a fertilizer in lieu of potash and Chilean nitrates. If there is a market I will agree to supply up to 2,000,000 tons sulphur 6 to 10 per cent., balance gypsum and limestone, with some magnesia and potash present 1 to 2 per cent. at \$10 per ton f. o. b. cars West Texas points, and at much less cost providing a spur of 20 miles of railroad be built. This can be ground and packed in 100-pound sacks at that price. Can supply 200,000 tons monthly by having 90 days' notice, providing cars be supplied. Have no idea where to start in looking for a market, and will only be able to develop providing sufficient contracts are in sight to justify the equipment investment.

## Noted Speakers at Export Convention.

The program of the ninth annual convention of the American Manufacturers' Export Association, held on Wednesday and Thursday of this week at the Waldorf-Astoria Hotel, New York, announced speakers for the banquet, including Sir Henry Babington Smith, K. C. B., Acting High Commissioner for Great Britain; a representative of the French Government; William C. Redfield, United States Secretary of Commerce; Edward N. Hurley, chairman of the United States Shipping Board; Herbert Bayard Swope, assistant to the chairman of the War Industries Board; Frank J. Vanderlip, president of the National City Bank, New York, and Martin W. Littleton. Representatives of foreign trade organizations, banking and shipping interests and chambers of commerce throughout the country manifested much interest in the convention and a general desire to attend it, and among those organizations which especially named representatives were the National Association of Manufacturers, Philadelphia Commercial Museum, Philadelphia Chamber of Commerce, Silk Association of America, National Implement and Vehicle Association, Milwaukee Association of Commerce, National Retail Dry Goods Association, New York Chamber of Commerce, Southern Commercial Congress, National Association of Electrical Dealers, Association of National Advertisers and Boston Chamber of Commerce.

The various subjects discussed included the following: "Financing Our Foreign Operations After the War," "Education for Foreign Trade Service," "Foreign Advertising," "Patents and Trademarks," "A Genuine Department of Commerce," "Our Ships After the War," and "Sales Organization Abroad." The list of speakers on these general topics and the various subjects under the respective heads included very many widely known men in finance, trade and manufactures through the United States. It comprised bankers, credit men, sales managers, publicity men, steamship owners and managers, manufacturers in various lines of industry and others. The meetings were divided into five sessions.

## Vast Irrigation Project Proposed for Southwest Texas.

Austin, Tex., October 26—[Special.]—In view of the expectation that the United States Government will enter upon a campaign of reclaiming vast areas of land in the Southwest and West by means of irrigation when the war is over, G. S. Bruce, Federal Immigration and Industrial Agent, with headquarters here, has prepared preliminary plans for the biggest project of this kind ever undertaken in this country. It involves the digging of a canal from a point on the Colorado River, near Austin, to a connection with the Rio Grande, at a point above Eagle Pass, a length of about 200 miles. The scheme provides for the construction of many laterals and ditches, the building of dams and locks for the conserving of the flood waters of not only the Colorado, but of several other rivers which traverse the region that the proposed canal is to run through.

Mr. Bruce estimates that the cost of the canal and irrigation system would be approximately \$100,000,000 and that it would enable the reclamation of more than 12,000,000 acres of land. Practically all of the land that would come under this irrigation system is now used exclusively for ranching purposes. It would be easily possible to grow three crops a year upon the land, it is claimed, and one year's production would be of enough value to more than pay the entire cost of the project.

### \$2,000,000 Street Railway Deal.

Control of the Montgomery Light & Traction Co. of Montgomery, Ala., has passed from Richard Tillis of that city to Isidore Newman & Son, bankers, of New Orleans, La., as the result of negotiations just concluded and representing, it is stated, a stock and real property value of approximately \$2,000,000. It is stated that engineers will be sent to Montgomery as soon as possible by the new owners to plan for general improvements to the street railway and power and light plants. It is expected that about \$250,000 will have to be expended. Mr. Tillis will continue to manage the company until the purchasers are ready to take charge. He has conducted the street-railway business in Montgomery for several years, but inability to obtain additional equipment lately has hampered operations.

October

Kissimmee road and  
Roby, To  
construction  
Stephens  
road const

Fort Sm  
on \$400,00  
Monroe  
\$195,000 b  
St. Peter  
for road a  
Vernon,  
and water

Clarksville  
macadam  
has appro  
Fayette,  
asphaltic  
linear feet  
Frostproof  
sand-clay  
San Ant  
costing \$1  
San Ant  
improvement  
Washington  
tract to cu

Birmingham  
November  
\$1,634 cub  
ing and g  
Blythevil  
for 2 miles  
costing \$8  
Bunnell,  
highway c  
additional  
Camp Gr  
diture for  
Canyon,  
roads inv  
50,800 line  
Chattano  
county wil  
thorpe to  
Harrisbur  
31 for 25  
riving 18  
clearing at  
Kansas C  
15 for 553  
costing \$38  
Oscoda,  
miles of gr  
able yard  
October 20  
Winston-  
street pav

Importa  
provement  
ber 2, und  
of State H  
Association  
This me  
officials of  
ment havin  
and also t  
in the con

The sec  
Highway  
Chicago, I  
ay Indus  
The pro  
of

President  
The Pres  
In New  
In the  
In the  
In the  
In the  
On the  
Each spea  
tion under  
pared for c  
pared to co

# Good Roads and Streets

## Bonds Voted.

Kissimmee, Fla.—Osceola county issued \$46,500 bonds for road and bridge construction.

Roby, Tex.—Fisher county voted \$50,000 bonds for road construction.

Stephenville.—Erath county voted \$150,000 bonds for road construction.

## Bonds to Be Voted.

Fort Smith, Tex.—Tarrant county contemplates voting \$400,000 bonds for road construction.

Monroeville, Ala.—Monroe county votes November 5 on \$105,000 bonds for road and bridge construction.

S. Petersburg.—Pinellas county will issue \$20,000 bonds for road and bridge construction.

Vernon, Tex.—City plans \$35,000 bond issue for street and water-works improvements.

## Contracts Awarded.

Clarksville, Ark.—Johnson county awarded contract for macadam and asphalt road construction, for which State has appropriated \$60,000.

Fayette, Ark.—City let contract for 14,000 square yards asphalt or bituminous macadam paving, with 15,000 linear feet of curb and gutter.

Frostproof, Fla.—Polk county let \$18,613 contract for sand-clay road construction.

San Antonio, Tex.—City let contracts for street paving costing \$13,000.

San Antonio, Tex.—City let \$4000 contract for street improvement.

Washington, D. C.—Navy Department let \$48,115 contract to construct concrete road.

## Contracts to Be Awarded.

Birmingham, Ala.—Lamar county receives bids until November 22 to grade, drain and gravel highway, requiring 31,631 cubic yards earth excavation, 6.14 miles of clearing and grubbing, etc.

Blytheville, Ark.—City will open bids about November 1 for 2 miles of concrete street paving, 20 to 50 feet wide, costing \$87,000.

Bunnell, Fla.—Flagler county appropriated \$5000 for highway construction, toward which State will contribute additional amount.

Camp Greene, N. C.—Government plans \$100,000 expenditure for concrete road construction.

Canyon, Tex.—Randall county contemplates constructing roads involving 53,527 cubic yards of excavation and 50,000 linear feet of grading.

Chattanooga, Tenn.—Government, State and Hamilton county will construct concrete driveway from Fort Oglethorpe to Chattanooga, for which \$105,000 is available. Harrisburg, Ark.—Poinsett county opened bids October 31 for 25 miles of graded earth-road construction, involving 185,000 cubic yards of excavation, 20 acres of clearing and grubbing, etc.

Kansas City, Mo.—City will receive bids about November 15 for 5534 square yards of vitrified brick block paving costing \$30,000.

Ocilla, Ark.—Mississippi county will construct 46 miles of graded earth-road construction, requiring 275,000 cubic yards of excavation, for which bids were opened October 29 and October 30.

Winston-Salem, N. C.—City will expend \$12,000 for street paving.

## Highway Congress Called to Discuss Nation's Need for Improved Roads.

Important meetings in the interest of highway improvement will be held in Chicago the week of December 2, under the auspices of the American Association of State Highway Officials and the Highway Industries Association.

This meeting will serve to bring together the leading officials of the various States and the National Government having directly to do with highway improvement, and also the various industries immediately interested in the construction, maintenance and use of highways.

The sessions of the American Association of State Highway Officials will be held in the La Salle Hotel, Chicago, December 2, 3 and 4, and those of the Highway Industries Association in the Congress Hotel, Chicago, December 4, 5 and 6.

The program for the sessions of the American Association of State Highway Officials is as follows:

### DECEMBER 2—MORNING.

President W. D. Uhler, Lieut.-Col., U. S. A., Presiding. President's Annual Address.

The Present Situation and How We Are Meeting It.

In New England—Col. W. D. Sohier of Massachusetts. In the East—John N. Mackall of Maryland.

In the Central West—W. O. Hotchkiss of Wisconsin.

In the South—W. S. Keller of Alabama.

In the West—Ira R. Browning of Utah.

On the Pacific Coast—Chas. F. Stern of California.

Each speaker will briefly summarize conditions in his section under the following heads: (1) Construction in 1918 compared to other recent years. (2) Special arrangements made for constructing work, 1918. (3) Cost of work compared to costs in recent years. (4) Changes in engineering

arrangement. (5) Plans for 1919. (6) Public sentiment in regard to road work. (7) Proposed legislation of especial interest.

It is hoped that from these very brief summaries a comprehensive idea can be gotten of the general national highway situation and of the steps taken in all sections to meet the emergency.

### AFTERNOON.

Vice-President A. R. Hirst of Wisconsin, Presiding. The afternoon program will be devoted to a discussion of a few of the more pressing administrative problems confronting highway officials in their efforts to construct highways.

General Topic: Ways of Doing Construction.

(a) Contracts, Unit Price and Cost Plus—Arthur W. Dunn of Massachusetts.

(b) Day Labor and Force Account Work, Bonuses—Charles M. Upham of Delaware.

(c) Utilizing More Mechanical Devices—P. F. Rogers of Michigan.

(d) Convict Labor—T. J. Ehrhart of Colorado.

General Topic: Materials of Construction.

(a) Car Shortage, How Can It Be Met—Clinton Cowan of Ohio.

(b) Bituminous Materials, the Situation and the Remedy: Storage Facilities—Provost Hubbard of the United States Highways Council.

(c) Steel for Bridges, the Situation and a Recommended Bridge Policy—Clifford Olden of Illinois.

Topic: Engineers for Highway Work—John H. Mullen of Minnesota.

### EVENING.

George P. Coleman of Virginia, Presiding. Illustrated Talks:

(1) Notable American Highway Construction—P. St. J. Wilson of the United States Office of Public Roads.

(2) Recent Damage to Eastern Highway Systems—W. G. Thompson of New Jersey.

(3) Convict Labor in Road Work—T. J. Ehrhart of Colorado.

### DECEMBER 3—MORNING.

Col. W. D. Sohier of Massachusetts, Presiding. Co-ordinating State Highway Systems—C. M. Babcock of Minnesota.

Discussion led by J. J. Murray of Tennessee.

Show Removal from County Highways—G. H. Biles of Pennsylvania.

Discussion led by A. H. Hinkle of Ohio and Stoddard R. Bates of Vermont.

Preparing for After We Have Won the War—S. E. Bradt of Illinois.

Discussion led by Wm. F. Cocke of Florida and Max F. Cunningham of Oklahoma.

### AFTERNOON.

Thomas H. McDonald of Iowa, Presiding. Regulation of Horse-Drawn Vehicles—H. C. Beard of Iowa.

Discussion led by Edwin Duffey of New York.

Eliminating Grade Crossings With Railroads—W. S. Gearhardt of Kansas.

Discussion led by W. S. Falls of North Carolina.

Proper Engineering Treatment of Necessary Railroad Grade Crossings—Rodman Wiley of Kentucky.

Discussion led by John H. Lewis of Oregon.

The Maintenance of Sand Roads—George A. Duren of Texas.

Discussion led by H. R. Carter of Arkansas and X. A. Kraemer of Mississippi.

The program of the Highway Industries Association meeting at the Congress Hotel is as follows:

### DECEMBER 4—MORNING.

W. D. Uhler, President American Association of State Highway Officials, Presiding.

Address of Welcome—Hon. Frank Lowden, Governor of Illinois. Response to Address of Welcome, Edwin S. Duffey of New York for the American Association of State Highway Officials; S. M. Williams of Ohio for the Highway Industries Association.

Highway Control by Federal Government Under War Conditions—Logan Waller Page, Chairman United States Highways Council.

The Development of Motor Parcel Post Routes—Hon. James L. Blakely, Fourth Assistant Postmaster-General.

### AFTERNOON.

S. M. Williams, President Highway Industries Association, Presiding.

Highways: A Neglected War-Time Necessity—Hon. James M. Cox, Governor of Ohio.

A Suggested National Highway Policy and Plan—E. J. Mehren, Editor Engineering News-Record.

Highway Transportation, Present and Future—Roy D. Chapin, Chairman National Highways Transport Committee.

### EVENING.

S. T. Henry, Third Vice-President Highway Industries Association, Presiding.

Highways a Military Necessity.

The Nation's Needs for Highway Development.

### DECEMBER 5—MORNING.

E. J. Mehren, Vice-President Highway Industries Association, Presiding.

The Underlying Principles of Laying Out, Marking and

Maintaining a State Trunk Highway System—A. R. Hirst of Wisconsin.

Discussion led by Paul D. Sargent of Maine and J. W. Bliss of North Dakota.

Proper License Fees for Motor Vehicles and Drivers—H. Eltinge Breed of New York.

Discussion led by A. G. Batchelder of the American Automobile Association, A. B. Fletcher of California and Duncan Buie of Louisiana.

### AFTERNOON.

George P. Coleman, Chairman Executive Committee American Association of State Highway Officials, Presiding.

Motor Trucks and Trailers Transportation Essentials; Regulation of Speed, Weight, Width and Height Necessary, but Should Not Restrict Their Expanding Use—Geo. M. Graham, Chairman Motor Truck Committee, National Automobile Chamber of Commerce.

Discussion led by Chas. J. Bennett, State Highway Commissioner of Connecticut; A. D. Williams of West Virginia; Frank H. Zouck of Maryland; A. W. Graham of Missouri, and T. R. Dahl of Ohio.

American Highways for Tomorrow—H. G. Shirley, Secretary Highway Industries Association.

Discussion led by P. St. J. Wilson, Chief Engineer of the United States Office of Public Roads and Rural Engineering, and Geo. E. Johnson of Nebraska.

### DECEMBER 6—MORNING.

S. M. Williams, Presiding.

The Activities of the Highway Industries Association—H. G. Shirley, Secretary.

Conditions We Are Facing—S. M. Williams.

Discussion by Portland Cement Association, National Paving Brick Association, National Crushed Stone Association, National Slag Association, National Association Sand and Gravel Producers, National Association Asphalt Block Manufacturers, National Association Road Machinery Manufacturers, Motor and Accessory Manufacturers, National Automobile Chamber of Commerce, Concrete Mixer Association, Granite Paving Block Manufacturers' Association, and others.

## Highways Authorized in Texas.

Austin, Tex., October 26—[Special.]—At the recent monthly meeting of the State Highway Commission aid for the following highway construction projects was granted:

Taylor county, highway No. 7, \$9700; Taylor county, highway No. 30, Federal aid \$20,800 heretofore granted increased to \$30,030; Comal county, highway No. 2, \$8750 additional State aid and Federal aid increased from \$25,750 to \$29,750; Freestone county, order granting \$70,000 on highway No. 32 reformed and reapportioned; Freestone county, highway No. 32, \$5000; Ward county, highway No. 17, \$10,042; Shackelford county, highway No. 1, increased from \$24,078 to \$30,679.

Intercounty highway was designated, beginning at Canyon, thence to Hereford, thence to Farwell.

Highway No. 4 was more definitely designated, beginning at North Roby, thence to Rotan, thence to Double Mountain Fork Bridge, thence to Aspermont.

## Road Meeting Postponed.

In the interest of public health the meeting of the Southern Appalachian Good Roads Association, which was to be held at Asheville, N. C., has been indefinitely postponed, according to a letter to the MANUFACTURERS RECORD from President A. D. Williams.

## Important Improvements on the B. & O.

The Baltimore & Ohio Railroad has given a contract to the Vang Construction Co. of Cumberland, Md., to enlarge its yards at Grafton, W. Va., which are to be doubled in size. A large force has already been put at work on this job, which will include changing the course of Three Forks Creek for a long distance at Laramie. Several nasty curves east of Grafton will be eliminated, or much eased, so that heavy coal trains may be started up the mountain with greater facility than is now possible.

Machine shops and a new roundhouse are also to be built at Grafton, so as to improve the means of maintaining the efficiency of locomotives on the third division of the road.

A contract has also been awarded by the railroad to the same construction company to make improvements at Riner, near Terra Alta, W. Va., which is east of Grafton. About 200 men are working there.

Contractors are pushing the work of double-tracking the Baltimore & Ohio's line between Fairmont, W. Va., and Connellsville, Pa., 70 miles. Considerable of this second track is expected to be in use before winter begins, so that the movement of coal will be much expedited. There are from 30 to 40 steam shovels engaged on this improvement, and every effort is being made to complete it soon.

# Construction Department

## EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

## DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

## AIRPLANE PLANTS, STATIONS, ETC.

S. C., Sullivan's Island.—Army Construction Division let contract to Simons-Mayrant Co., Charleston, S. C., to construct hydroplane station.

Tex., Galveston.—Naval Air Station.—Navy Department, Lieut. L. B. Hyde, Chief Engr. Air Service of Galveston Dist., American National Insurance Bldg., selected site for temporary airplane station; location is sufficiently near to permanent station to permit use of same railway spurs, sewer connections, etc. (Details of permanent station lately noted.)

## BRIDGES, CULVERTS, VIADUCTS

Ark., Little Rock.—Pulaski County Improvement Dist. will invite bids to construct \$625,000 bridge; reinforced concrete arch type structure; 2000 ft. long; 56 ft. wide, with 40-ft. roadway; Hedrick & Hedrick, Engrs., Interstate Bldg., Kansas City, Mo. (Lately noted.)

Fla., Kissimmee.—Osceola County Commiss., issued \$46,500 bonds for bridges and roads in Dist. No. 3.

Ala., Monroeville.—Monroe County votes Nov. 5 on \$195,000 bond issue to construct bridges and roads. M. McFountain, Judge of Probate.

La., Shreveport.—City let contract Dutton & Nutting, 709 Louisiana Ave., Shreveport, to construct pile trestle and lay four 16-in. lines of universal pipe.

Mo., Parkville.—Platte County issued \$20,000 bonds to construct bridge; Irvine Wills, County Engr., Platte City.

N. C., Fayette.—City, Jas. D. McNeill, Mayor, will expend about \$3000 to erect 2 bridges; contracts practically awarded locally. (Lately noted.)

Okla., Claremore.—Rogers County Commiss., I. W. Slack, Chmn., will construct steel bridge over Verdigris River; bids until Nov. 16; W. J. Eldridge, County Clerk. (See Machinery Wanted—Bridge Construction.)

Texas, Lockhart.—Caldwell County Commissioners let contract to R. Edes for steel bridge over Plum Creek. (Lately noted.)

Tex., Dallas.—City contemplates construction of reinforced bridge at Gaston and College Aves.; probable cost \$5000. Address The Mayor.

Tex., Dallas.—City contemplates constructing reinforced concrete bridge at Gaston and College Aves. to replace wooden structure; cost \$5000; Hal Moseley, City Engr.

Va., Hanover.—State Highway Commiss. let contract to W. E. Carter, 294 Remington Bldg., Richmond, Va., on percentage basis, estimated cost \$23,000, to construct reinforced concrete bridge across North Anna River on Washington Highway, between Hanover and Caroline County.

W. Va., Buckhannon.—Upshur County Court, Ernest Phillips, Chmn., rejected bids for concrete bridge across Buckhannon River; receive new bids. (Bids lately noted for Oct. 16.)

## CANNING AND PACKING PLANTS

Ark., Foreman.—D. A. Cook and others are considering establishment of meat curing plant and slaughter-house.

Fla., Fort Myers.—American Fish Products Co., Fort Myers, and Ocean Leather Co., New York, plan \$1,000,000 investment for fish canning, dehydrating, etc.; purchased site on Caloosahatchee River; erect 2-story, 100x50-ft. fireproof building, over river front, on concrete piling, with 12-ft. wharf on both

sides; locate dehydrating stations at Boca Grande, Sanibel Island, Carlos Bay, Caxambas, Lostman's River and Bahia Honda; each station to have daily capacity 2 tons fish; will catch fish, crabs, etc.; can various kinds of fish; manufacture fish products. (Noted in September, under Miscellaneous Factories; also under Fertilizer Factories.)

Fla., Miami.—Armour & Company, main office Chicago, will build branch meat-packing plant.

Fla., St. Petersburg.—Taylor Fruit Co., Largo, Fla., will install fruit-packing equipment.

Fla., Oldsmar.—Reeds Farm Co., Fred. L. Cook, Prest., contemplates establishment of packing-house.

S. C., Tatum.—Stewart & Company organized; will establish cannery noted in Sept.; D. W. Stewart, Prest.-Mgr.; E. E. Stewart, V.-P. and Secy.; have buildings; install equipment for daily capacity 20,000 to 25,000 cans sweet potatoes, sugar corn, vegetables and cane syrup; also erect canning plant. (See Machinery Wanted—Boilers; Engines.)

## COAL MINES AND COKE OVENS

Ala., Birmingham.—Sellers Coal Co., capital \$100,000, Incptd. by E. M. Sellers and others.

Ky., Evans.—Benito Coal Co., Middlesboro, Ky., organized; Samuel Bennett, Prest.; W. M. Young, V.-P., Knoxville; S. E. Bennett, Secy.-Treas.; develop 631 acres; no machinery needed at present. (Lately noted Incptd., \$25,000 capital.)

Ky., Louisville.—Gordon-Miller Coal & Coke Co. plans to erect power plant and install electrically-driven machinery.

W. Va., Charleston.—New Gauley Coal Corp., 1101 Union Bldg., lately noted Incptd., \$10,000,000 capital, will hold 50,000 acres in West Virginia near railroad now under construction by Kanawha & Michigan Ry.; probably not develop at present; prospect and acquire properties in Nicholas and other counties. (Lately noted Incorporators include Samuel B. Howard, Louis H. Gunther, Paul Smith, Geo. V. Reilly and Harry O'Loughlin, all of New York.)

W. Va., Fairmont.—Domestic Coke Corp., Frank H. Gunn (of Tolles, Hogsett, Gunn & Morley), Prest., Cleveland, O., let contract to H. Koppers Co. of Pittsburgh, Pa., at \$3,000,000 to install 60 coke ovens; will consume 1200 tons of coal daily and produce 450 gals. of toluol and 13½ tons of ammonium sulphate; has 45-acre site; Government will finance construction; company has option of acquiring full ownership at end of war.

W. Va., Monongalia County.—Fairmont-Lowellsburg Coal Co., Fairmont, W. Va., Incptd., capital \$100,000, by John Y. Hite, B. W. McClure, R. R. Hunsucker and others.

W. Va., Swiss.—Kanawha Collieries Co., Charleston, W. Va., Incptd., \$100,000 capital, by Harold P. Tompkins, Edward Gebhart of Charleston, and C. H. Martin, Mount Hope.

W. Va., Swiss.—Kanawha Collieries Co., 207 Charleston National Bank Bldg., Charleston, W. Va., organized; Wm. G. Conley, Prest.; Edw. Gebhart, V.-P.; Harold P. Tompkins, Secy. and Mgr.; develop 1200 acres at present; daily output 1000 tons; has opened mining machinery bids. Lately noted Incptd., \$100,000 capital. (See Machinery Wanted—Building Materials; Power-plant Equipment.)

## COTTON COMPRESSES AND GINS

Ark., Gregory.—Gregory Gin Co. increased capital from \$8000 to \$15,000.

Ala., Springfield.—R. M. Davison and others will install cotton gin.

## COTTONSEED-OIL MILLS

N. C., Wilmington.—Universal Oil Co., capital \$50,000, Incptd. with John R. C. Boyer, Prest., Cranford, N. J.; W. A. Worth, V.-P. and Mgr., Petersburg, Va.; R. H. Hubbard, Secy., New York; purchased Universal Oil & Fertilizer Co.'s plant at Hall and Dickinson Sts., including site 396x330 ft.; reconstruct interior of plant, install machinery and increase capacity; install small oil refinery; discontinue fertilizer department; manufacture cottonseed, peanut and coconut oils, etc.

## DRAINAGE SYSTEMS

Fla., Jacksonville.—Baldwin Drainage Dist. contract has been relet (for completion), by Isham Randolph & Co., Engrs., Chicago and Jacksonville, to Wills & Sons and McCarthy, local contractors; work includes 95 mi. main and lateral ditches, largely completed.

## ELECTRIC PLANTS

Ala., Wayne.—City plans to improve electric-light plant and install new machinery; cost about \$25,000. Address The Mayor.

Ark., Havana.—Kyle & Company will install electric-light plant to supply city lighting.

Ala., Montgomery.—Isadore Newman & Sons, New Orleans, La., purchased Montgomery Light & Traction Co.'s property, including electric-light plant and street railway; reported to expend about \$250,000 in rehabilitating street railway and for other improvements; transaction is understood to involve \$2,000,000.

Fla., Summerville.—City will install electric-light system; John D. Taylor, Prest. of Summerville Cotton Mills, interested.

Ky., Louisville.—Louisville Gas & Electric Co. contemplates auditions and extensions to supply power for war industries.

Ky., Whitesburg.—Elkhorn Jellico Coal Co. will build addition to power plant.

Md., Baltimore.—Mt. Vernon Woodberry Mills, 506 Continental Bldg., let general contract to Gladfelter & Chambers, 36th St. and Roland Ave., Baltimore, for power-house; 1 story; 40x100 ft.; plans by Jos. Evans Sperry, Calvert Bldg., Baltimore.

Tex., San Angelo.—C. McBurnett will construct electric plant for Angelus Hotel; cost \$12,000.

Va., Norfolk.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, D. C., is receiving bids for electric-light power plant; cost \$6000.

Va., Quantico.—Bureau of Yards and Docks, Washington, D. C., plans to construct \$45,000 electric-generating station.

## FERTILIZER FACTORIES

Fla., Dunnellon.—Florida Fertilizer Milling Co., Ocala, Fla. (lately noted Incptd., \$100,000 capital); organized; F. D. M. Strauchan, Prest., Brunswick, Ga.; Geo. F. Armstrong, V.-P., Savannah, Ga.; Jack Camp, V.-P.; Clarence Camp, Secy., both Ocala; has completed \$15,000 frame and galvanized-iron building; installed 4 mills, 2 rotary driers, elevators, etc., cost \$25,000; daily capacity 200 tons pulverized hard-rock phosphate.

## FLOUR, FEED AND MEAL MILLS

Ala., Springfield.—R. M. Davison and others contemplate installing gristmill.

Md., Ellicott City.—C. A. Gambrill Mfg. Co., 110 Commerce St., Baltimore, will erect additional boiler-house; reinforced concrete, slate roof, steel sash and galvanized work; let contract to West Construction Co., 908 American Bldg., Baltimore.

Okla., Muskogee.—Grain Elevator.—Midland Valley Milling Co. will rebuild grain elevator at L and Dorchester Sts. reported burned at loss of \$30,000 on building and machinery.

Tenn., Dyersburg.—Ewell Milling & Grain Co. will install 50-bbl. mill; equipment purchased; increased capital from \$10,000 to \$25,000. (See Miscellaneous Enterprises.)

## FOUNDRY AND MACHINE PLANTS

Ala., Birmingham.—Stoves.—Cobb Stove Co., capital \$3000, Incptd. by W. S. Cobb and others.

D. C., Washington.—Boiler Plant Extent-

sion.—Bureau of Yards and Docks, Navy Dept., Washington, let contract at \$156,300 to Hyde & Baxter, 711 Thirteenth St., Washington, to construct boiler plant extension. (Noted in Aug.)

Ky., Lexington.—Water Heaters.—Harry L. Musser of Central Kentucky Gas Co. plus organization of company to manufacture Musser house-air-water-heater.

Mo., St. Louis.—Machinery.—Dixie Machinery Mfg. Co., capital \$30,000, Incptd. by Henry P. Mueller, Edward H. Frick and W. A. Dunham.

Md., Baltimore.—Fuse Plant.—Bartlett Hayward Co., Scott and McHenry Sta. will build fuse plant; Parker, Thomas & Rice, Archts., Union Trust Bldg., Baltimore.

N. C., Wilmington.—Castings.—Liberty Shipbuilding Co. leased Cape Fear Machinery Works and will operate; use output of castings in construction of concrete tanks being built for Government.

Va., Alexandria.—Torpedo Assembling Plant.—Navy Dept., let contract Fleischman Construction Co., 531 7th Ave., New York at \$900,750 to construct naval torpedo assembling station. (Lately noted.)

Va., Yorktown.—Mine-filling Plant.—Navy Department, Washington, has plans for mine-filling plant to cost \$104,800, 5 storage buildings to cost \$750,000, and 10 magazine buildings to cost \$90,000.

## GAS AND OIL ENTERPRISES

Ala., Montgomery.—Woco Gasoline & Oil Co., F. C. Schwend, Secy., Box 35, lately noted Incptd., capital \$15,000, is selling agency for gasoline and oils.

Ala., Montgomery.—Oil Refinery.—De Janette Refining Co. has increased capital from \$10,000 to \$25,000.

Ark., Little Rock.—Texas Ranger Oil Co. capital \$25,000, Incptd. by D. H. Echols, Prest.; J. J. Daniels, V.-P.; W. R. Adecock, Secy-Treas.

Ky., Lexington.—Excel Oil & Gas Co. chartered with \$100,000 capital by Samuel Wober of Lexington, Barney Woberly of Baltimore, Morris Sidehnik of New York, and others.

Okla., Muskogee.—Miller Development Co. capital \$50,000, Incptd. by J. P. Miller, H. A. Aldridge and L. C. Siler.

Okla., Oklahoma City.—Filling Station—Magnolia Petroleum Co., Galveston, Tex., reported to erect \$2500 brick filling station.

Okla., Oklahoma City.—Filling Station—Sinclair Refining Co. will erect \$6000 filling station.

Okla., Walters.—Walters Gas Co., capital \$50,000, Incptd. by H. H. Kline, Walters; B. O. Mahaffey and E. R. Christman of St. Louis, Mo.

Okla., Frederick.—Oil Refinery.—Red River Refining Co., capital \$100,000, Incptd. by F. M. Parrish of Frederick, C. H. Travis of Lawton, Okla., and others.

Tex., Tex-Penn Oil Co., capital \$2,000,000, Incptd. by A. H. Clarke, J. M. Holliday and S. A. McCaskey, all of Pittsburgh, Pa.

Tex., Thurber.—Oil Refinery.—Texas & Pacific Coal Co. increased capitalization from \$1,000,000 to \$5,000,000; is reported planning oil-land development and erection of oil refinery.

Tex., Wichita Falls.—Floydada Oil Co. capital \$30,000, Incptd. by F. M. Butler, C. Surginer and T. J. Taylor.

W. Va., Charleston.—Cannon Oil & Gas Co., \$50,000 capital, by Joseph Field, Henry Finkel, both of Washington, D. C.; Bennie Kline, Canonsburg, Pa., and others.

## HYDRO-ELECTRIC PLANTS

Okla., Springfield.—R. M. Davidson and others are having creek surveyed; contemplate developing water-power and supply electricity to Springfield and industrial plants.

ICE AND COLD-STORAGE PLANTS

Ala., Anniston.—Dairymen's Milk Products Co. will install 3-cylinder uniflow refrigerating machine of 15 tons capacity. (See Miscellaneous Factories.)

Fla., Miami.—J. G. Crosland Co. capital \$50,000, Incptd.; J. G. Crosland, Prest.; C. H. Froe, V.-P.; P. A. Dampier, Secy-Treas.

Va., City Point.—Virginia Ice & Cold

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Storage Co.  
Sherman, I.  
both of C.

Tex., Fort  
Land Co. is  
3rd. concrete  
ported cost

IRON  
Ark., Men  
Birmingham  
of Mangane  
Meas) are  
establishme  
diction.

LAN  
Ala., Cal  
capital \$15,  
Prest.; Mrs  
Pattie.

Fla., Moon  
main offic  
to own  
will develop  
Okeechobee  
Clews, Pres  
Lewis, Secy  
all of Tampa

Md., Balti  
\$60,000 for  
\$100,000 for C  
one appropr

LUMB  
Ark., Cla  
increased ca

Ala., Fay  
increased capi

Fla., Olds  
500 acres  
essories.

Fla., Pens  
incap  
Prest.; New  
Mobile, Ala  
rights of U  
ates at Jun  
and Instan

Ca., Alber

and S. L. S  
Gandy Lumb  
with privile  
to operate s

Ky., White  
Pikeville, K  
and on Bla  
will deve

La., Lake

will buil

Miss., Bla

will repea

Tex., Texa

increased ca

META  
S. C., Tatu

Stewart, Pre

ming plant

and ice sy

See Cannin

inery Wan

Va., Norfo

ity Iron &

organized;

Nalls, V.-P.

M. Smith, S

structural s

work. (Late

tal)

Ark., Bates

l. Case (wi

estate i

and in pr

rester to

preliminary

to erode oil

Dorhoff &

Bo.

Ark., Bates

Manganese &

capital;

Peterson, V.-

Ark., Bates

with c

orse, L. A.

Ark., Bates

street washin

Ark., Bates

XUM

Storage Co., Incptd., capital \$30,000; Henry Sherman, Prest.; N. C. Ellis, Secy.-Treas.; both of City Point.

#### IRRIGATION SYSTEMS

Tex., Fort Stockton.—Zimmerman Irrigated Land Co. is proceeding with construction of 300-ft. concrete dam across Pecos River; reported cost \$150,000.

#### IRON AND STEEL PLANTS

Ark., Mena.—Blast Furnace.—J. B. Brimm, Birmingham, Ala., and S. F. Novotny (Prest. of Manganese Mining & Development Co. of Mena) are reported interested in proposed establishment of blast furnace for ore reduction.

#### LAND DEVELOPMENTS

Ala., Calcis.—Calcis Farm & Stock Co., capital \$15,000, Incptd.; F. M. Jackson, Prest.; Mrs. J. P. Selman, Treas.; W. A. Pattillo, Secy.; all of Birmingham.

Fla., Moore Haven.—Liberty Point Co., main office Tampa, Incptd., with \$30,000 capital to own and operate farms, groves, etc.; will develop several hundred acres on Lake Okeechobee, 6 mi. from Moore Haven; A. C. Lewis, Prest.; R. M. Clewis, V.-P.; C. H. Lewis, Secy.-Treas.; H. A. Kilgore, Mgr.; all of Tampa, Fla.

Md., Baltimore.—Park Board appropriated \$600 for St. Paul St. improvements and \$100 for Civic Center (additional to previous appropriations).

#### LUMBER MANUFACTURING

Ark., Clarendon.—Galloway-Kennedy Co. increased capital from \$40,000 to \$75,000.

Ala., Fayette.—Southern Lumber Co. increased capital stock to \$50,000.

Fla., Oldsmar.—R. E. L. Pryor purchased 500 acres fallen timber; will manufacture ties.

Fla., Pensacola.—Star Lumber Co. organized, capital stock \$100,000; L. H. Dinkins, Prest., New Orleans; E. J. Buck, Secy., Mobile, Ala.; company purchased timber rights of Union Land & Timber Co. on 17,000 acres at junction of Perdido and St. Rivers, and installing sawmill.

Ga., Albany.—F. L. Gordy, T. H. Miller and S. L. Steadman will incorporate F. L. Gordy Lumber Co., capital stock of \$25,000, with privilege to increase to \$250,000; plan to operate sawmill, etc.

Ky., Whitesburg.—McKinney Lumber Co., Pikeville, Ky., purchased 600 acres timber on Blackburn Creek in Pike County; will develop.

La., Lake Charles.—Powell Lumber Co. will build sawmill.

Miss., Biloxi.—Henry Krohn will rebuild small reported burned at loss of \$3000.

Tex., Texarkana.—Four States Lumber Co. increased capital stock to \$75,000.

#### METAL-WORKING PLANTS

S. C., Tatum.—Stewart & Company, D. W. Stewart, Prest.-Mgr., will erect can-manufacturing plant in connection with vegetable and cane syrup canneries to be established. See Canning and Packing Plants. (See Machinery Wanted—Boilers; Engines.)

Va., Norfolk.—Structural Steel, etc.—Liberty Iron & Wire Co., 400 McKeever Bldg., organized; W. A. Farish, Prest.; E. J. Nalls, V.-P.; R. E. Davie, Secy.-Treas.; C. M. Smith, Supt.; product: ornamental iron, structural steel, bronze, brass and wire work. (Lately noted Incptd., \$25,000 capital.)

#### MINING

Ark., Batesville.—Ferro-Manganese.—Junius C. Case (with Adams & Shell, dealers in real estate and manganese land) is interested in proposed construction of 200-ton smelter to manufacture ferro-manganese; preliminary company organized; probably to crude oil for fuel. (Adams & Shell and Barbhoff & Dowell lately noted in connection.)

Ark., Batesville.—Manganese.—Arkansas Manganese & Mining Co. chartered with \$75,000 capital; P. J. Concannon, Prest.; P. F. Peterson, V.-P.; A. B. Forney, Secy.-Treas.

Ark., Batesville.—Manganese Oil Co. chartered with capital stock of \$25,000 by W. D. Rose, L. A. Laughlin and W. B. Kennedy.

Ark., Batesville.—A. J. Edwards will construct washing plant; cost \$40,000.

Ark., Batesville.—Manganese.—J. C. Johns-

ton is reported to develop 244 acres of manganese land, 10 mi. from Batesville; J. P. Miles, County Surveyor, completed surveys.

Ark., Harrison.—North Star Mining Co., Incptd. with F. C. Heywood, Gen. Mgr.; consolidated North Star Mining Co. and Lone Star Mining Co.; plans to build 2 mills.

Fla., Lake Weir—Sand and Gravel.—Lake Weir Washed Sand Co., Incptd. with capital stock of \$20,000; E. W. Ellis, Prest. and Gen. Mgr.; C. G. Rose, Secy.-Treas.

Ga., Atlanta—Granite.—Elbert Blue Granite Co., Incptd. with \$74,800 minimum and \$360,000 authorized capital stock; Robert L. Foreman, George S. Lowndes and George R. Donovan, Incorporators.

Okla., Hockerville—Lead and Zinc.—Miami Volunteer Mining Co., Commerce, Okla., will build \$65,000 concentrating plant.

Okla., Hockerville—Lead and Zinc.—Diamond Joe Mining Co., Miami, Okla., will build 200-ton concentrating plant costing \$60,000.

Okla., Picher.—Oko Mining Co., Joplin, Mo., A. Meyerhoff, Supt., will construct 250-ton concentration plant.

Okla., Picher.—Amy T. Mining Co., E. Ballinger, Supt., will build 200-ton concentration plant.

Okla., Picher.—La Salle Mining Co., C. L. Funk, Supt., will enlarge concentration plant to capacity of 500 tons.

S. C., Smyrna.—Piedmont Mining Corp., 100% W. Robinson St., Gaffney, S. C., lately noted Incptd., will develop mines; Wm. Guest, Prest.-Mgr.; S. L. Settemeyer, Secy.-Treas. (See Machinery Wanted—Hoisting (Mine) Machinery.)

Va., Vesuvius—Manganese and Iron Ore.—A. S. Adams of Rocky Mount, Va., and associates purchased Red Mountain tract of manganese and iron-ore land; 8000 acres; will develop; has railroad facilities.

Va., Garrisonville—Pyrites.—Western Pyrites Co., U. B. Curtis, Prest., Washington, D. C., acquired Old Dominion Sulphur Co.'s property at Garrisonville and will develop; produce 100 tons pyrites daily for delivery to sulphuric acid manufacturers. (Lately noted Incptd. under Va., Rosslyn, with \$90,000 capital.)

Va., Garrisonville—Pyrites.—Western Pyrites Co., Incptd. with capital stock of \$90,000; U. B. Curtis, Prest.; Frank Porter, Secy.; both of Washington, D. C.; company took over property of Old Dominion Sulphur Co. and will operate mines, producing 100 tons pyrites daily.

#### MISCELLANEOUS CONSTRUCTION

Ark., Van Buren—Levee.—Crawford Levee Dist. let contract at 34 cents per cu. yd. to G. T. Cazier, Lamar, Ark., to construct levee embankment; Engrs., Winters & Dove, 311 Merchants' Bank Bldg., Fort Smith, Ark. (In August bids noted on 47,600 cu. yds. in embankment.)

La., New Orleans—Industrial Canal.—Port Commiss., John R. Loomis, Purchasing Officer, S33 Canal St., let contract at \$620,434 to McFlinic-Marshall Co., Pittsburgh, Pa., to construct locks, gates and fixed parts of industrial canal. (Complete canal details heretofore noted.)

La., New Orleans—Levee.—Atchafalaya Levee Dist. let contract to Lower Coast Construction Co., New Orleans, at \$77,550 for levee construction. (Bids noted in Sept.)

Md., Indian Head—Coal-storage Basin.—Navy Department, Washington, D. C., will construct coal-storage basin; cost \$125,000.

Tenn., Freeport.—Chas. Clarke & Co., Galveston, Tex., received contract at \$95,000 to repair breakwater.

Tenn., Memphis—Levee.—Mississippi River Comsn. let contract to J. A. Burt, Gunnison, Miss., at \$53,760 for levee construction, Lower St. Francis Levee Dist. (Bids lately noted.)

Tex., Galveston—Jetty Repairs.—Chas. Clarke & Co., Galveston, received contract at \$104,700 to make jetty repairs.

Tex., Point Isabel—Channel Improvements.—Brazos de Santiago channel, 2½ mi. in length, will be deepened and improved, at reported estimated cost of \$125,000. Address the Mayor.

Va., Hampton Roads—Fence and Gates.—Navy Dept., Washington, D. C., contemplates building fence and gates at Naval Training Station; cost \$38,000.

Va., Norfolk—Harbor Improvements.—Port and Harbor Shipping Facilities Comsn., E. F. Carry, Chmn., Washington, recommended and will install 2 floating repair shops, 11 coaling machines, etc., to improve harbor facilities; construction of docks, piers and

warehouses by the city is contemplated. Address The Mayor.

W. Va., Wheeling—Car-unloading Dock.—Wheeling Iron & Steel Co. let contract Baker-Dunbar-Allen Co., Pittsburgh, Pa., to construct car-unloading dock at plant on Ohio River; crib type; contain 250 piles; install stationary derrick.

#### MISCELLANEOUS ENTERPRISES

Fla., Fort Myers—Fisheries, etc.—Marco Co., Incptd., \$200,000 capital; Henry L. Broughton, Prest.; to conduct navigation, fisheries, etc.

Fla., Panama City—Publishing.—Bay County Publishing Co., Incptd., \$5000 capital; W. H. Lynn, Prest.; G. H. McKenzie, V.-P.; Vernon Y. Lynn, Secy.; W. H. Lynn, Treas.; publishing; acquired Bay County Beacon of Panama City and Lynn Haven Tribune of Lynn Haven, Fla.

Fla., Oldsmar—Stockyards.—Reeds Farms Co., Fred L. Cook, Prest., contemplates establishment of stockyards.

Ga., Dublin—Grain Elevator.—Farmers' Cooperative Assn., C. H. Kittrell, Prest., will erect co-operative grain elevator.

Ga., Fitzgerald—Tobacco Redrying.—J. L. Denton of Paris, Ky., representing Kentucky capitalists, contemplates establishing tobacco redrying plant and warehouse.

Mo., St. Louis—Crematory.—Frank B. Gibson will erect crematory to include columbarium.

S. C., Allendale—Hardware.—Farmers' Hardware Co., capital \$10,000, Incptd.; R. B. Cunningham, Prest.; R. H. Walker, V.-P.; J. J. Allen, Secy.-Treas.

Tenn., Dyersburg—Grain Elevator.—Ewell Milling & Grain Co. increased capital from \$10,000 to \$25,000; has added brick building increasing floor space 4200 sq. ft. and elevator capacity to 10,000 bu. storage; also purchased 50-bbl. mill to be installed in January.

Tex., Eastland—Laundry.—P. Brown, Midland, Tex., will erect laundry; cost \$20,000.

W. Va., Charleston—Printing.—Charleston Printing Co. organized; Bert G. Shook, Prest.; Harry Morgan, V.-P.; N. J. Wood, Secy.; Wightman D. Roberts, Mgr.; let contract to W. A. and J. L. Abbott, Charleston, to erect 40x65-ft., 2-story brick building, cost \$10,000; purchased machinery; publish West Virginia Mining News; also job printing. (Lately noted chartered, \$25,000 capital.)

#### MISCELLANEOUS FACTORIES

Ala., Anniston—Cannery.—Dairymen's Milk Products Co. will install milk-handling plant; purchased equipment, including 3-cylinder uniflow refrigerating machine of 15 tons capacity, complete with coils for ice-cream hardening, milk-storage and ice-storage rooms.

Fla., Miami—Oil Reclaiming, etc.—Bureau of Yards and Docks, Navy Department, Washington, D. C., will construct oil-reclaiming house and septic tank; cost \$20,000.

Fla., Oldsmar—Cannery.—Reeds Farm Co., Fred L. Cook, Prest., contemplates establishment of cannery.

Fla., Vero—Brooms, etc.—Pioneer Broom & Fiber Co., capital \$10,000, Incptd.; A. G. Even, Secy.-Treas.; C. M. Ramick, Supt.; manufacture brooms with palmetto leaf, pine needle or broomcorn covering; daily capacity 50 doz. brooms; purchased machinery.

Fla., Fort Pierce—Cane Syrup.—Havana Cane Products Co., Havana, Cuba, organized, capital \$10,000, to establish plant for manufacture of cane syrup.

Fla., Jacksonville—Glass.—Crystal Glass Co., capital \$90,000, Incptd. with Chas. H. Pflaster, Prest.; Zina L. Bliss, V.-P.; W. Thos. W. Fowler, Secy.-Treas.

Fla., Miami—Tanning Extracts.—Paltanic Extract Co. will be incorporated, \$100,000 capital, by Walter J. Lloyd, Frances Hotel, 327 Ninth St., and others, to manufacture tanning material from palmetto roots; install machinery. Previously noted. (See Machinery Wanted—Evaporator.)

Ga., Macon—Bottling.—Tokay Bottling Co., capital \$25,000, Incptd. by R. Brody, G. Troup Howard and E. W. Gould.

La., New Orleans—Chlorine Plant.—War Dept. is reported to establish \$10,000,000 chlorine plant to manufacture poison gas for shells and bombs. Address Major H. H. Hanson, Chemical Welfare Service, care of Mayor Behrman, New Orleans, for information.

Mo., St. Louis—Electric Fixtures.—Oliver Electric Mfg. Co. let contract to Amber & Zimmerman, 1228 Pine St., St. Louis, to construct factory building; 2 stories; cost \$45,000.

Mo., Sedalia—Bakery.—Nafzinger Bakery Co. let contract to H. S. Sommer, Sedalia, to erect building for bakery; 1 and 2 stories; 80x90 ft.; cost \$35,000; Selby H. Kurfiss, Archt., 1202 Scarritt Bldg., Kansas City.

Okl., Tulsa—Oil Vapor Process.—Oil Vapor Process Co. chartered with capital stock of \$100,000; D. and W. Reiser, and L. Chuster, incorporators.

S. C., Columbia—Creamery.—Columbia Creamery Co. will double capacity of milk plant; purchased equipment, including pasteurizing and holding equipment, coolers, separators, etc.

Tenn., Nashville—Hog Cholera Serum.—Eagle Company purchased State serum plant; will remodel and install machinery.

Tex., Dallas—Ice Cream.—J. H. Smith will erect addition to ice-cream factory; cost \$6000.

Va., Big Stone Gap—Brooms.—E. R. Taylor is interested in proposed installation of machinery to manufacture brooms. (See Machinery Wanted—Broom Machinery.)

Va., Lodge—Brooms.—Bailey B. Dawson will establish broom factory. (See Machinery Wanted—Broom Machinery.)

Va., Kinsale—Brooms.—A. T. Rowe will establish factory to manufacture household brooms; erect ordinary construction building. (See Machinery Wanted—Broom Machinery.)

Va., Staunton—Cigars.—Steele Cigar Co., capital \$25,000, Incptd.; Thomas H. Steele, Prest.; G. W. Snyder, Secy., both of Staunton.

W. Va., Riverside.—M. V. Construction Co., Parkersburg, W. Va., has contract for building plant.

W. Va., Wheeling—Pulverizing.—Wheeling Pulverizing Co. let contract to Geo. Reed, Wheeling, to erect factory; cost \$5000.

#### MOTOR CARS, GARAGES, TIRES, ETC.

Ala., Mobile—Automobiles.—Harrington Motor Co., J. A. Swift, Prest., lately noted increasing capital from \$19,500 to \$40,000, continues dealing in automobiles.

Fla., West Palm Beach—Garage.—Walter R. Moore will build garage.

Fla., West Palm Beach—Garage.—E. C. Gross will build garage.

Fla., West Palm Beach—Garage.—W. I. Metcalf will build garage.

Ky., Ashland—Garage.—J. H. McCleary will erect garage; 2 stories; 50x100 ft.; cost \$10,000.

N. C., New Orleans—Garage.—C. Melhado will erect garage; brick; cost \$11,000; A. Garrett, Contr., New Orleans.

La., Shreveport—Garage.—W. K. Henderson let contract to T. Green for brick garage on Travis St.; cost \$40,000. (Lately noted.)

Md., Baltimore—Garage.—Guilford Motor Co., York Road, near Arlington Ave., let contract McLean Contracting Co., Fidelity Bldg., Baltimore, to erect addition to garage; 1 story; 100x200 ft.

Mo., St. Louis—Automobiles.—H. Bollwerk & Bros. Vehicle Co., 3105 S. Broadway, lately noted Incptd., capital \$18,000, organized; Henry Bollwerk, Prest.-Mgr.; Jos. Bollwerk, V.-P.; Henry Ben Bollwerk, Secy.; continues manufacturing wagons for oil hauling and tanks for oil trucks; also repair.

N. C., Greensboro—Tires.—Greensboro Tire & Repair Co., capital \$10,000, Incptd. by S. A. Abley, T. E. Martin and C. B. Willer; all of Charlotte, N. C.

N. C., Greensboro—Trucks, Tractors, etc.—Southern Truck & Car Corp. organized; J. A. Norford, Prest.-Mgr.; H. P. Christie, V.-P. and Secy.; contemplates future erection of \$200,000 steel structural building; install machinery to build trucks, tractors and bodies. (Lately noted chartered, \$1,000,000 capital.)

Okl., Enid—Garages.—Oklahoma Garage & Sales Co., capital \$15,000, Incptd. by R. M. Browning, A. L. Rippy and H. A. McDonald.

Okl., Tulsa—Filling Station.—Purdy Motor Co. will erect \$2000 filling station.

W. Va., Huntington—Service Station.—L. A. Wolcott & Co., distributor, will enlarge service station, 4th Ave. and 7th St.

#### RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Va., Elkins—Western Maryland R. R. Co., U. S. Railway Administration, W. G. McAdoo, Director-General, Washington, let contract to Price Construction Co., Maryland Trust Bldg., Baltimore, to construct railway shops; reported cost \$500,000; H. R. Pratt, Engr., Continental Bldg., Baltimore.

W. Va., Charleston.—Baltimore & Ohio R. R., H. A. Lane, Ch. Engr., Baltimore, will erect roundhouse.

W. Va., Grafton.—Baltimore & Ohio R. R., H. A. Lane, Chief Engr., Baltimore, Md., is reported to have let contract to Yang Construction Co., Cumberland, Md., to erect wheel-pressing and machine shops and roundhouse in connection with proposed yard extension.

### ROAD AND STREET WORK

Ala., Montgomery.—Montgomery County contemplates graveling 50 yds. of road in Capitol Heights; Thos. H. Edwards, County Engr.

Ala., Vernon.—Lamar County Commsn. will grade, drain and surface with gravel Sulligent and Hamilton Road, being part of State Trunk Road No. 18, between Sulligent and Marion County line; 6.14 mi. clearing and grubbing; 31,634 cu. yds. earth excavation; 495 lin. ft. vitrified clay pipe; 495 ft. corrugated iron pipe; 26,397 ft. B. M. lumber in bridges, etc.; bids until Nov. 22; W. S. Keller, State Highway Engr., Montgomery, Ala. (See Machinery Wanted—Road Construction.)

Ark., Blytheville.—Paving Dist. No. 1 will pave 2 mi. streets with concrete; 20 to 50 ft. wide; concrete curb and gutter 6-10 in. thick; 1500 ft. 12-15-in. sewers; cost \$87,000; bids about Nov. 1; Engrs., Pride & Fairley, Blytheville.

Ark., Clarksville.—Johnson County, Road Improvement Dist. No. 2, let contract A. R. Young Construction Co., Lawrence, Kan., to construct road; macadam; asphalt surface; State appropriated \$60,000 toward construction.

Ark., Fayette.—City let contract to E. A. Gillett, Springfield, Ark., for 14,000 sq. yds. asphaltic or bituminous macadam paving with 15,000 lin. ft. curb and gutter; 2800 yds. excavation.

Ark., Helena.—Geo. A. Sanford, Secy., Gateway Highway Assn., contemplates hard-surfacing highway between Helena and Brinkley.

Ala., Florence.—City Commsn. does not contemplate new paving at present; R. E. Meade, City Engr. (Recent report incorrect.)

Ala., Monroeville.—Monroe County votes Nov. 5 on \$195,000 bond issue to construct roads and bridges. M. McFountain, Judge of Probate.

Ark., Harrisburg.—Poinsett County, Road Improvement Dist. No. 3, will construct 25 mi. of graded earth roads; 185,000 cu. yds. earth excavation; 20 acres clearing and grubbing; 25 acres grubbing, etc.; bids until Oct. 31; Pride & Fairley, Engrs., Osceola.

Ark., Osceola.—Mississippi County, Etowah Road Improvement Dist. No. 2, will construct 20 mi. of graded earth roads; 110,000 cu. yds. earth excavation; 75 acres of clearing and grubbing, etc.; bids opened Oct. 29; Pride & Fairley, Engrs., Osceola.

Ark., Osceola.—Mississippi County, Burdette Road Improvement Dist. No. 3, will construct 26 mi. of graded earth roads; 165,000 cu. yds. earth excavation; 45 acres clearing and grubbing, etc.; bids opened Oct. 30; Pride & Fairley, Engrs., Osceola.

D. C., Washington (Anacostia Station).—Bureau Yards and Docks, Navy Department, Washington, let contract to Fairbuilt Building Corp., 712 Southern Bldg., Washington, at \$48,115 to construct concrete road at Naval Air Station.

Fla., Bunnell.—Flagler County Commsn. appropriated \$5000 for Bunnell-Volusia County highway construction; State Road Dept. will appropriate additional amount.

Fla., Kissimmee.—Osceola County Commsn. issued \$46,500 bonds for roads and bridges in Dist. No. 3.

Fla., St. Petersburg.—Pinellas County Commsn. plan road and bridge construction; \$20,000 bond issue.

Mo., Kansas City.—City will pave 5534 sq. yds. with 4-in. vitrified brick block on 8-in. concrete base; cost \$30,000; Board of Public Works receives bids about Nov. 15.

Mo., Kansas City.—City, Curtis Hill, City Engr., let contract to Martin D. Bagwell, 45 Railway Exchange Bldg., for macadam paving on 52d and 53d Sts.

Mo., St. Joseph.—City awarded contract to Land Construction Co., Ballinger Bldg., for resurfacing Illinois Ave. with tarvia.

N. C., Camp Greene.—War Department, Washington, plans construction of concrete roads at Camp Greene, near Charlotte, to cost \$100,000.

N. C., Winston-Salem.—City will pave sections of Spring, West 4th, North Liberty, Cherry and others streets; cost \$12,000. W. H. Holcomb, City Secy.

Tenn., Chattanooga.—State Highway Coms., J. J. Murray, Secy., appropriated \$40,000 to let contract proposed concrete driveway on Rossville Blvd., from army camp, at Fort Oglethorpe, to city limits at East End Ave.; Hamilton County Comms., Chattanooga, appropriated \$5000 and Government \$60,000.

Tex., Canyon.—Randall County Comms., contemplates constructing roads; 55,527 cu. yds. excavation; 50,800 lin. ft. grading; C. L. Fletcher, County Judge.

Tex., Dallas.—City will grade Bowser and Travis Sts. at cost of \$2700; Hal Moseley, City Engr.

Tex., Camp Bowie.—War Department, Washington, authorized expenditure of several thousand dollars for tarvia-surfaced roads at Camp Bowie, near Fort Worth. Address Construction Quartermaster.

Tex., Dallas.—City contemplates expending \$1300 to improve sidewalk, etc., on Bowser St. Address The Mayor.

Tex., Fort Worth.—Tarrant County Commsn. \$400,000 bond election for road construction. Geo. E. Hosey, County Judge.

Tex., Greenville.—Hunt County, Commerce Dist., defeated \$200,000 bonds for road construction. Address County Comms. (Late noted to vote.)

Tex., Houston.—Harris County Commsn. will construct shell surfacing on Cedar Bayou-Lynchburg Road; bids until Nov. 14; Chester H. Bryan, County Judge.

Tex., Houston.—Harris County, H. L. Washburn, County Auditor, will resurface Clinton Road; bids until Nov. 4. (See Machinery Wanted—Road Construction.)

Tex., Roby.—Fisher County, Road Dist. No. 3 voted \$60,000 bonds to construct roads; M. A. Hopson, County Judge.

Tex., San Antonio.—City let contract to McGee Construction Co. of San Antonio to repair Houston St. paving; cost \$4000.

Tex., San Antonio.—City let contract to Valde Rock Asphalt Co., San Antonio, to improve Commerce St. pavement, cost \$3000; to McGee Construction Co., San Antonio, repairs to Houston St. cost \$1000.

Tex., Stephenville.—Erath County, Road Prec. No. 1, voted \$150,000 bonds to construct roads; Government will appropriate about \$50,000. Address County Comms.

Tex., Vernon.—City plans issue of \$35,000 bonds for street and water-works improvements. Address The Mayor.

### SEWER CONSTRUCTION

Ark., Blytheville.—Paving Dist. No. 1 will install 1500 ft. 12-15-in. sewers in connection with paving; bids about Nov. 1; Engrs., Pride & Fairley, Blytheville. (See Road and Street Work.)

Fla., Key West.—Bureau Yards and Docks, Navy Department, let contract to Smallwood Company, 901 James Bldg., Chattanooga, Tenn., at \$62,000 for addition to sewer and water system.

Mo., Macon.—City has postponed until spring the construction of sewage-disposal works for which bids were later noted for Sept. 24; Frank L. Wilcox, Engr., Syndicate Trust Bldg., St. Louis, Mo.

Okla., Geary.—City let contract to McIntosh-Walton Engineering Co., Oklahoma City, Okla., for sewerage system; cost \$30,000.

Tex., Luling.—School Board and City Comms. will install sewerage system in school building.

W. Va., Watson.—State Board of Control, Clarksburg, W. Va., contemplates building sewage-disposal plant.

### TELEPHONE SYSTEMS

S. C., Charleston.—Western Union Telegraph Co., W. O. Gaffney, Mgr. of Charleston branch, will install wires, telegraph instruments, etc., in office building on E. Bay St., being remodeled at cost of \$50,000.

### TEXTILE MILLS

N. C., Albemarle.—Cotton Products—Wiscasset Mills Co. will not build additional mill. (Recent report was error.)

N. C., Lowell.—Cotton Yarn, etc.—Robinson Spinning Co., capital \$200,000, Incptd. by J. S. Rankin, S. M. Robinson, W. E. G. Robinson and others.

### WATER-WORKS

Ark., Fayette.—City reported to install electric pump, cost \$6000, at pumping station. Address The Mayor.

Ark., Fayetteville.—City plans installation of \$6000 electrically-driven pump at White River pumping station. Address The Mayor.

Fla., Key West.—Bureau Yards and Docks, Navy Department, let contract at \$62,000 for additions to water and sewer system to Smallwood Company, 901 James Bldg., Chattanooga, Tenn.

Fla., Rebecca.—City contemplates constructing water-works system; include tank and mains. Address The Mayor.

Mo., Galena.—City plans to improve water-works, including construction of pumping station; estimated cost \$100,000; Burns & McDonnell, Engrs., Interstate Bldg., Kansas City.

Mo., Galena.—City plans to improve water-works, including construction of pumping station; estimated cost \$100,000; Burns & McDonnell, Engrs., Interstate Bldg., Kansas City.

N. C., Wilmington.—City, Thos. D. Meares, City Clerk, asks bids until Nov. 18 on lately-noted improvements and enlargements water-works pumping station at Hilton Park; includes 100-ft. light-weight cast-iron flanged 14-in. diam. suction pipe; 100-ft. discharge pipe; 5,000,000-gal. centrifugal pump; steam-driven turbine engine or double vertical double-acting engine; pumphouse and concrete foundation; reinforced concrete reservoir; 7000 cu. yds. earth excavation and disposal; 4 filter units, each 500,000 gals. daily capacity; two 20x30-ft. storerooms, built as second story on present pumping station; J. N. Johnston, City Engr. (See Machinery Wanted—Water-works.)

Okla., Ardmore.—City let contract to Ardmore Construction Co., Ardmore, Okla., to build pipe line to Hickory Creek; cost \$24,000. (Bids noted in Sept.)

Okla., Tulsa.—City will lay water mains, place hydrants, etc.; bids until Oct. 31; Chas. F. Burke, City Auditor. (See Machinery Wanted—Water-works Supplies.)

Okla., Tulsa.—City engaged H. A. Pressey, Oklahoma City, to make survey of probable sources of water supply, including Grand River. (Installation of low-duty centrifugal pump of 800 gals. daily capacity, additional mains, etc., lately noted.)

Tenn., Graham.—City plans water-works improvements. Address The Mayor.

Va., Portsmouth.—Emergency Construction Co. let contract to Ulen Contracting Co., Chicago and New York (with general offices for this work, Natl. Bank of Suffolk Bldg., and construction force offices in Law Bldg., Suffolk, Va.), to improve Portsmouth, Berkley & Suffolk water supply, to cost nearly \$2,000,000; includes raising dam at Lake Cohoon, 13 ft., increasing power-house capacity, filtration basins, etc.; laying 30-in. pipe from Suffolk to Portsmouth, new supply lines under river at Norfolk, etc.; M. R. Keefe, Gen. Supt.; construction to be supervised by Capt. Moore, U. S. A.; R. H. Gordon and H. Q. Kennedy of U. S. A.; Ulen Contracting Co. will at once erect temporary offices, shop and barracks, etc. (Lately noted as part of Government plans to expend \$10,000,000 for acquiring, improving and operating public utilities system in Norfolk Portsmouth section.)

Tenn., Nashville.—Central High School at E. L. du Pont de Nemours & Co.'s plant at Jacksonville under construction by Mason & Hanger Co., 52 Vanderbilt Ave., New York, under supervision of the Government.

Tex., Sweetwater.—Grogan Hotel; \$3500.

Tex., Jarrell.—Jarrell Mercantile Co.'s store; D. C. Erwin's store; Condra Bros' store; First State Bank building; estimated loss \$100,000.

Tex., Luling.—H. L. King's millhouse, including wood saw, splitter and gasoline engine; loss \$1000.

Va., Fredericksburg.—J. A. Dillard's residence in Madison County.

Va., Port Norfolk (P. O. Portsmouth).—Office and rooming house owned by South Hill Manufacturing Co.

W. Va., Charleston.—Woodrum Home Outfitting Co.'s stable and garage; loss \$10,000.

bonds for water and street improvements. Address The Mayor.

### WOODWORKING PLANTS

Fla., Ross.—Crates.—Exchange Supply Co. (auxiliary of Florida Citrus Exchange), E. Miller, Mgr., Tampa, Fla., purchased the latter tract, will install machinery and manufacture crate material; purchased equipment.

Mo., Macon.—Cooperage.—Macon Cooperage Co., W. A. Roush, Pres., will rebuild plant reported burned; erect 140x100-ft. mill structure building by day labor; buy equipment for tight cooperage, staves, heads, 600 blbs. daily; machinery being purchased.

### FIRE DAMAGE

Ala., Cunningham.—G. S. Roan's barn.

Ark., Fort Smith.—J. W. and Robt. McRae's candy factory, loss \$10,000; building occupied by Fort Smith Commission Co. and Finest Coffee Co., loss to companies \$250,000, and on building owned by Mrs. E. T. Echols, \$60,000; building occupied by W. J. Echols Wholesale Grocer Co., and owned by Mrs. E. T. Echols, loss \$75,00.

Ark., Walnut Ridge.—Jim Davis' residence; owned by Lee Smith, Hornerville, Mo.

Mo., Macon.—Macon Cooperage Co.'s plant; estimated loss \$25,000.

Ky., Cynthiana.—Clarence Le Bus' feed warehouse; loss \$12,000; Smith & Toney's livery stable.

Ky., Hopkinsville.—Cloud C. Carter's stable in South Christian; loss \$5000.

Md., Princess Anne.—William P. Fitzgerald's garage; loss \$3000.

Miss., Biloxi.—Henry Krohn's sawmill; loss \$3000.

N. C., Cary.—J. A. Smith's residence and High School dormitory; both buildings owned by Mr. Smith; loss \$7000 to \$8000.

Okla., Muskogee.—Midland Valley Milling Co.'s grain elevator at L and Dorchester Sts.; loss on building and machinery \$30,000.

Okla., Picher.—B. F. Wood's 2 buildings; loss \$4000.

Tenn., Nashville.—Central High School at E. L. du Pont de Nemours & Co.'s plant at Jacksonville under construction by Mason & Hanger Co., 52 Vanderbilt Ave., New York, under supervision of the Government.

Tex., Sweetwater.—Grogan Hotel; \$3500.

Tex., Jarrell.—Jarrell Mercantile Co.'s store; D. C. Erwin's store; Condra Bros' store; First State Bank building; estimated loss \$100,000.

Tex., Luling.—H. L. King's millhouse, including wood saw, splitter and gasoline engine; loss \$1000.

Va., Fredericksburg.—J. A. Dillard's residence in Madison County.

Va., Port Norfolk (P. O. Portsmouth).—Office and rooming house owned by South Hill Manufacturing Co.

W. Va., Charleston.—Woodrum Home Outfitting Co.'s stable and garage; loss \$10,000.

Okla., Tulsa.—T. T. T. residence; 2 st. frame dwl.

Okla., Tulsa.—T. T. T. frame dwl.

## BUILDING NEWS

### BUILDINGS PROPOSED

#### APARTMENT-HOUSES

Ga., Camp Gordon.—Salvation Army will erect hut near Remount Depot; 40 rooms; cafeteria, rest and reading-rooms; cost about \$40,000.

Ky., Hazard.—Reliance Coal Co. will erect Y. M. C. A. building. (See Dwellings.)

Ky., Krypton.—Muncey Coal Mining Co., W. S. H. Armstred, Mgr., will erect Y. M. C. A. building, etc. (See Dwellings.)

Tenn., Chattanooga.—Jewish Welfare Board, Paul Heyman, Representative, will erect building near Civic Center; plans include classrooms, assembly halls, recreation-room, shower baths, auditorium, etc.; accommodations 200; cost \$15,000; furnishings and equipment, \$5000.

Va., Norfolk.—North Shore Improvement Co., 25 N. Dearborn St., Chicago, will erect 2-family apartments and individual residences in West Ghent; brick and frame; cost \$6000 to \$10,000; break ground on or before Nov. 1 for 25 buildings, mainly of 2-flat type; contemplates soon to erect apartments of kitchen.

Va., Norfolk.—First State Bank will probably erect bank building to replace structure noted damaged by fire.

Va., Port Norfolk (P. O. Portsmouth).—South Hill Manufacturing Co. will probably rebuild office and rooming-house noted damaged by fire.

Tex., Dallas.—D. C. Erwin's store; frame; 4 rooms.

Okla., Tulsa.—T. T. T. frame dwl.

Okla., Tulsa.—T. T. T. frame dwl.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

## CHURCHES

Ky., Hazard.—Reliance Coal Co. will erect church building, etc. (See Dwellings.)  
 Ky., Krypton.—Muncey Coal Mining Co., W. S. H. Armstred, Mgr., will erect church. (See Dwellings.)  
 La., New Orleans.—Providence Baptist Church will erect \$200 building. Address The Pastor.  
 Tex., Waller.—Methodist Church will probably rebuild structure noted damaged by fire. Address The Pastor.

## CITY AND COUNTY

Okla., Picher—City Hall.—City will erect city hall; concrete; 6 rooms and assembly hall; constructed to permit erection of additional rooms later. Address The Mayor.

## DWELLINGS

Ark., Walnut Ridge.—Lee Smith, Hornersville, Mo., will probably rebuild residence noted damaged by fire.  
 Fla., West Palm Beach.—George Peterson will erect cottage.  
 Ky., Carr's Fork.—Carr's Fork Coal Co., Hindman, Ky., will erect 35 miners' houses; contract let within 3 weeks.  
 Ky., Flat Lick.—Flat Lick Coal Co. will erect 30 additional miners' houses and school building; contract let within 10 days.  
 Ky., Hazard.—Reliance Coal Co. will erect 9 additional miners' houses, Y. M. C. A. and church.  
 Ky., Krypton.—Muncey Coal Mining Co., W. S. H. Armstred, Mgr., will erect 50 miners' houses, Y. M. C. A. store, church and school; contract awarded at once.  
 La., New Orleans.—Carondelet Realty Co. will erect frame residence; cost \$2000.  
 La., Shreveport.—E. A. Shaw will erect residence; frame; cost \$2750.

Md., Baltimore.—Maryland Realty Corp., 33 Calvert Bldg., will erect 16 dwellings on Belair Ave. near Erdman Ave.; 14x48 ft.; 2 stories; brick; cost \$2600 each; plans and construction by owner.

Md., Phoenix.—John B. Wier will probably erect dwelling, dairy and icehouse to replace structures lately noted damaged by fire.

Mo., Kansas City.—Joseph Fix, 6000 Houston St., will erect residence; frame; 1 story and basement; 14x20 ft.; composition roof; cost \$6000.

Mo., St. Louis.—J. Carr Gamble will rebuild 9-room brick residence; plans call for hardwood floors, decorations, fixtures, exterior and interior painting.

Mo., St. Louis.—Allen D. McKinley will remodel residence; 9 rooms; brick; plans include hardwood floors, decorations, fixtures, exterior and interior painting.

N. C., Cary.—J. A. Smith will probably rebuild residence and High School dormitory noted damaged by fire at loss of \$7000 to \$900.

Okla., Tulsa.—H. E. Hanna will erect \$3000 residence; frame.

Okla., Tulsa.—F. Peterson will erect frame and concrete residence and garage; cost \$200.

Okla., Tulsa.—O. Kubatzky will erect residence; 2 stories; tile and stucco; cost \$5000.

Okla., Tulsa.—Adams & Walker will erect 2 frame dwellings; cost \$5000.

Okla., Tulsa.—L. B. Davis will repair residence; cost \$2000.

Okla., Tulsa.—J. H. Bankston will erect 2-story frame residence; cost \$8000.

Okla., Tulsa.—H. J. Brickner will erect residence; frame; cost \$2000.

Okla., Tulsa.—J. Kounghz will erect residence; frame; cost \$2500.

Okla., Tulsa.—C. H. Rawson will erect frame residence; cost \$3000.

Okla., Tulsa.—H. C. Stahl will erect residence; frame; cost \$2500.

S. C., Camden.—Leroy Springs Davidson will probably erect dwelling to replace structure lately noted damaged by fire.

Tenn., Lewisburg.—S. T. Morton will probably rebuild residence lately noted damaged by fire at loss of \$6000.

Tenn., Lyles.—United States Housing Corp., Otto M. Elditz, Director, 613 G St., W. Washington, is having plans prepared by Edward E. Dougherty, Stahlman Bldg., Nashville, for dwellings. (See Government and State.)

Tex., Dallas.—F. Swor will erect residence; 4 rooms; cost \$2300.

Tex., Georgetown.—J. S. Harris will prob-

ably rebuild residence lately noted damaged by fire at loss of \$2500.

Tex., Houston.—D. Miller will erect 5-room residence; cost \$2450.

Tex., Houston.—Houston Land Corp. will erect five 6-room, four 5-room, one 3-room and one 8-room dwellings; frame and stucco; total cost \$33,439.

Tex., Houston.—C. Belk will erect 6-room dwelling; cost \$2850.

Tex., Houston.—E. C. Brock will erect dwelling; 5 rooms; cost \$2200.

Tex., Houston.—R. E. Morse, Jr., will erect dwelling; 2 stories; 5 rooms; cost \$2900.

Tex., Houston.—W. C. Brannum will erect 2 dwellings; 5 rooms; cost \$2900 each.

Tex., Houston.—W. E. Tynes will erect \$2000 dwelling; 5 rooms.

Tex., Houston.—G. F. Welch will erect 4 dwellings; 5 rooms; cost \$3000.

Tex., Houston.—D. C. Wright will erect 5-room dwelling; cost \$2000.

Tex., Houston.—J. C. Funk will erect dwelling; 5 rooms; cost \$2000.

Tex., Houston.—J. H. Edmonds will erect 4-room dwelling; also remodel 2-story dwelling; cost \$3750.

Tex., Houston.—Mrs. E. K. Newton will erect \$2500 residence; 2 stories.

Tex., San Antonio.—A. L. Thorman will erect 2 dwellings; frame; cost \$2900 each.

Tex., San Antonio.—D. R. Barnes will erect residence; frame; cost \$2500.

Tex., San Antonio.—Mrs. J. V. Friederick will erect frame residence; cost \$2500.

Tex., San Antonio.—S. Friedman will erect 3 dwellings; frame; total cost \$11,700.

Tex., San Antonio.—T. E. Abbott will erect dwelling; frame; cost \$3000.

Tex., San Antonio.—W. T. Green will erect frame dwelling; cost \$3000.

Va., Milton—Dwellings.—United States Housing Corp., Otto M. Elditz, Director, 613 G St. N. W., Washington, is having plans prepared by Clinton Mackenzie, 15 Broad St., New York, for 50 dwellings; 1½ and 2 stories; Walter Flueh, Engr., Milton.

Va., Yorktown—Storage and Magazine Buildings.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, will erect 5 storage buildings to cost \$75,000 and 10 magazine buildings to cost \$30,000.

Nov. 12 for labor to construct complete with materials furnished by Government 3 buildings for United States marine hospital; drawings and specifications obtainable from custodian at New Orleans or office of Supervising Archt., Washington. (Previously noted.)

Md., Camp Holabird—Warehouse.—War Department, Gen. R. C. Marshall, Jr., Construction Division, 7th and D Sts. S. W., Washington, will expend \$228,680 at Camp Holabird to include extension of Warehouse No. 3; 561 ft. long; connected by platform, about 4080 sq. ft., with Colgate Creek dock.

Md., Indian Head—Public Works Office.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, opened bids to erect extension to public works office at naval proving grounds; Do. Kimpe Construction Co., Union Hill, N. J., only bidder at \$10,400.

Tenn., Lyles—Dwellings.—United States Housing Corp., Otto M. Elditz, Director, 613 G St. N. W., Washington, is having plans prepared by Edward E. Dougherty, Stahlman Bldg., Nashville, for dwellings.

Tex., Fort Worth—Motor School.—War Department, Washington, will erect mess halls, barracks, lecture-rooms, quarters for officers, laboratories, etc., at motor transport school, Camp Bowie.

Va., Hampton Roads—Grandstand and Bleachers.—Bureau of Yards and Docks, Navy Dept., C. W. Parks, Chief, Washington, plans to erect grandstand and bleachers; cost \$61,500.

Va., Milton—Dwellings.—United States Housing Corp., Otto M. Elditz, Director, 613 G St. N. W., Washington, is having plans prepared by Clinton Mackenzie, 15 Broad St., New York, for 50 dwellings; Walter Flueh, Engr., Milton.

Va., Milton—Storage and Magazine Buildings.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, will erect 5 storage buildings to cost \$75,000 and 10 magazine buildings to cost \$30,000.

## HOSPITALS, SANATORIUMS, ETC.

La., New Orleans.—Treasury Department, Jas. A. Wetmore, Acting Supervising Archt., Washington, receives bids until Nov. 12 for labor required to construct complete with materials furnished by Government 3 buildings for United States marine hospital. (See Government and State.)

Md., Salisbury.—Peninsula Hospital is having plans prepared by Owens & Sisco, Continental Bldg., Baltimore, for 3-story addition; 52x31 ft.; cost about \$10,000; plans in preliminary stage; details not determined.

## HOTELS

Tex., San Angelo.—C. C. McBurnett will construct electric-light plant for Angelus Hotel.

Tex., Sweetwater.—Owner of Grogan Hotel will rebuild structure noted damaged by fire at loss of \$5000.

Tex., Pensacola—Storage, etc.—Bureau of Yards and Docks, C. W. Parks, Chief, Navy Department, Washington, will receive bids to erect heat and detonator storage building; cost \$4500.

Fla., Pensacola—Housing.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, plans to expend \$180,000 for housing personnel; specification No. 2534.

Fla., Pensacola—Mess Hall.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, opened bids to erect mess hall at Pensacola and latrine and 3 barracks at Santa Rosa Island. (See Fla., Santa Rosa Island.)

Fla., Santa Rosa Island—Barracks, Latrine, etc.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, opened bids to erect latrine and 3 barracks buildings at Santa Rosa Island and mess hall at Pensacola; Jas. Alexander Construction Co., 388 N. Front St., Memphis, is lowest bidder for work complete at \$60,949. (Lately noted.)

Fla., Cutler—Aero Gunnery School.—War Department, Washington, will erect 2 additional units at army aero gunnery school; \$650,000 appropriation.

Fla., Columbus—Musketry School.—Construction Division, War Department, Washington, plans to erect various buildings at musketry school; cost about \$100,000.

Ky., Louisville—Motor School.—Construction Division, War Department, Washington, will build school to consist of quarters, barracks, administration office, classroom and motor school; cost about \$182,233.

La., New Orleans—Hospital.—Treasury Department, Jas. A. Wetmore, Acting Supervising Archt., Washington, receives bids until Nov. 12 for labor to construct complete with materials furnished by Government 3 buildings for United States marine hospital. (See Government and State.)

Okla., Wewoka.—Board of County Comr., J. S. Cravens, Chrmn., receives bids until Nov. 2 to erect \$10,000 school building; plans and specifications at office county superintendent, Wewoka.

Okla., Wewoka.—Board of Education will erect \$7700 addition to Washington School and \$6900 addition to Riverside School; also construct boiler-rooms in following schools: Horace Mann School, cost \$6000; Lowell School, \$1600; Emerson School, \$4600; Whitfield School, \$4000. (Previously noted in part.)

Okla., Wewoka.—Board of County Comr., J. S. Cravens, Chrmn., receives bids until Nov. 2 to erect \$10,000 school building; plans and specifications at office county superintendent, Wewoka.

Okla., Oklahoma City.—Board of Education, H. M. Fairley, Secy., opened bids to erect addition to various schools; L. F. Lee, lowest bidder at \$36,963 for Culberson School; Campbell & Price at \$59,764 for Woodrow Wilson School; R. M. Christmas at \$34,889 for erection of Willard School; all of Oklahoma City; Campbell & Price low bidders at \$160,507 for all buildings; will eliminate addition to Eugene Field School; bids did not include painting, plumbing, heating or drainage. (Lately noted.)

Tenn., Nashville.—E. I. du Pont de Nemours & Co. will probably rebuild Central High School at Jacksonville noted damaged by fire at loss of \$75,000 to \$100,000; building under construction by Mason & Hanger Co., 52 Vanderbilt Ave., New York, under supervision of the Government.

Tex., Fort Worth.—War Department, Washington, will erect mess halls, barracks, etc., at motor transport school, Camp Bowie. (See Government and State.)

## STORES

Ark., Little Rock.—M. O. Wender has permit to erect 2 brick buildings, \$10,12 Main St.; cost \$12,000.

Fla., West Palm Beach.—A. B. Cox will erect store building.

Ky., Krypton.—Muncey Coal Mining Co., W. S. H. Armstred, Mgr., will erect store building, etc. (See Dwellings.)

La., New Orleans.—Mrs. S. Poche will erect business building; cost \$3000.

Md., Baltimore.—Acker, Merrill & Condit Co., Charles and Clay Sta., has plans by Owens & Sisco, Continental Bldg., Baltimore, for alterations to store at 106-10 N. Howard St. (Previously noted.)

Mo., St. Louis.—Campbell Iron Co. will erect addition to business building; cost \$236.

Tex., Jarrell.—Condra Brothers will probably erect store building to replace structure noted damaged by fire.

Tex., Jarrell.—Jarrell Mercantile Co. will probably rebuild store noted damaged by fire.

Tex., Jarrell.—D. C. Erwin will probably rebuild store noted damaged by fire.

Tex., San Antonio.—M. Wite Estate will remodel front of business building on Solead St.; cost \$350.

## THEATERS

Ga., Augusta.—Princess Company Incptd. with \$5000 capital by E. J. Sparks, G. Lloyd Preacher and H. D. Hearn.

Ga., Augusta.—War Department Commission on Training Camp Activities, Washington, is having plans prepared by J. A. Minix for additional Liberty Theater at Camp Hancock; seating capacity 1600. (Lately noted.)

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

## WAREHOUSES

Ky., Cynthiana.—Clarence Le Bus will probably rebuild iron-clad warehouse noted damaged by fire at loss of \$12,000.

Md., Camp Holabird.—War Department, Gen. R. C. Marshall, Jr., Construction Division, 7th and B Sts. S. W., Washington, will expend \$228,680 at Camp Holabird to include extension of Warehouse No. 3; 561 ft. long. (See Government and State.)

Md., Frederick.—L. E. Mullinix will prob-

ably erect warehouse to replace building lately noted damaged by fire.

Mo., St. Louis.—Schultz Belting Co. will erect addition to warehouse; cost \$2400.

Mo., St. Louis.—Best Clymer Mfg. Co. has permit to construct foundation for warehouse; cost \$10,000.

Tex., Waller.—Farmers' Union will probably rebuild warehouse noted damaged by fire.

Tex., Fort Worth.—W. J. Boaz will erect warehouse; cost \$2000.

## BUILDING CONTRACTS AWARDED

## APARTMENT-HOUSES

Fla., Jacksonville.—Vulcan Iron Works let contract to Henry T. Jones, 1702 Swift St., Jacksonville, to remodel building at 1440 E. Duval St. for apartment-house; 6 suites; frame; 40x100 ft.; tin roof; wood floors; gas heat; electric lights; cost \$5000; R. A. Benjamin, Archt., 709 Bishy Bldg., Jacksonville. (Contractor lately noted to remodel building for stores.)

Mo., St. Louis.—L. Penningroth let contract to A. J. Gamache, 1000 Chestnut St., St. Louis, to alter tenement; cost \$200. (Lately noted.)

## ASSOCIATION AND FRATERNAL

Ala., Montgomery.—National War Work Council, Young Women's Christian Assn., let contract to Southern Ferro Concrete Co., Atlanta, to erect 3 hostess-houses, barracks and garage at Camp Sheridan; 2 stories; 99x69 ft.; cost \$40,000; Katherine C. Budd, Archt., 527 5th Ave., New York.

Ark., Little Rock.—National War Work Council, Young Women's Christian Assn., let contract to F. Walter Jones, Memphis, Tenn., to erect hostess-house and barracks; 2 stories; 80x175 ft.; cost \$80,000; Katherine C. Budd, Archt., 527 5th Ave., New York.

Miss., Hattiesburg.—National War Work Council, Young Women's Christian Assn., let contract to F. Walter Jones, Memphis, to erect hostess-house and barracks at Camp Shelly; 2 stories; 60x80 ft.; cost \$25,000; Katherine C. Budd, Archt., 527 5th Ave., New York.

Okla., Lawton.—National War Work Council, Young Women's Christian Assn., let contract to F. Walter Jones, Memphis, to erect hostess-house and barracks; cost \$30,000; Katherine C. Budd, Archt., 527 5th Ave., New York.

N. C., Charlotte.—National War Work Council, Young Women's Christian Assn., let contract to Harry H. Vought, Jr., Grand Central Terminal Bldg., New York, to erect hostess-house; 2½ stories; 98x85 ft.; Katherine C. Budd, Archt., 527 5th Ave., New York. (Lately noted.)

S. C., Spartanburg.—National War Work Council, Young Women's Christian Assn., let contract to Harry H. Vought, Jr., Grand Central Terminal Bldg., New York, to erect hostess-house; 2½ stories; 150x83 ft.; Katherine C. Budd, Archt., 527 5th Ave., New York.

## BANK AND OFFICE

Fla., West Palm Beach.—L. E. Heisler let contract to Harry Grubbs, West Palm Beach, to erect office building at 432 Clematis Ave.; brick; composition roof; wood floors; cost \$1000; C. W. Grubbs, Archt., West Palm Beach. (Lately noted under Stores.)

N. H., Portsmouth.—Ulen Contracting Co., Contr. to enlarge Portsmouth, Berkley & Suffolk Water Co.'s plant will erect several temporary structures to include 1-story office building; barracks building, 1 story, 76x30 ft.; blacksmith shop.

W. Va., Moundsville.—City & County Bank let contract to H. Batson, Moundsville, to repair bank building; Charles W. Bates, Archt., National Bank Bldg., Wheeling.

## CHURCHES

N. C., Roanoke Rapids.—Methodist Episcopal Church South let contract to J. W. Snoot, Roanoke Rapids, to erect church building; 71x105 ft.; brick and stone; slate roof; wood floors; electric lights; cost \$25,000; steam heat, about \$3000; C. C. Benton & Bros., Archts., Wilson, N. C. Address contractor. (Lately noted.)

## COURTHOUSES

Mo., Jefferson City.—Cole County let contract at \$58,400 to Louis Schell to rebuild

courthouse lately noted damaged by fire; R. B. Miller, Archt., Jefferson City. (Lately noted.)

## DWELLINGS

D. C., Washington.—M. A. and Lulu M. Pledler let contract to J. E. Thompson, 5802 Georgia Ave., Washington, to erect 2-story brick dwelling and garage, 1339 Gallatin St., N. W.; cost \$4000; Karl Hartig, Archt., 1316 Euclid St., N. W., Washington. (Lately noted.)

D. C., Washington.—Clifford E. Walker has plans by and let contract to L. D. Hayes, Jr., 4601 Deane Ave., N. E., Washington, to erect 2-story frame dwelling, 4201 Washington Court; cost \$2500.

Fla., Jacksonville.—Denham & Edwards let contract to Henry Taylor & Son, 2825 Oak St., Jacksonville, to erect residence; cost \$3000; Mark & Sheftall, Archts., 210 Clark Bldg., Jacksonville.

Fla., Miami.—Alton Beach Realty Co. is reported to have let contract to Bastian Realty Co., Fletcher Trust Bldg., Indianapolis, Ind., to erect 6 residences and garages; 2 stories; Merritt Harrison, Archt., Board of Trade Bldg., Indianapolis.

Ky., Fort Thomas.—Ben Federle, 610 Oak St., Newport, Ky., let contract to W. H. Ware, 38 Riverside Parkway, Fort Thomas, to erect residence; 40x26 ft.; 1 story and basement; cost \$8000; C. C. and E. A. Weber, Archts., Miller Bldg., Cincinnati; let contract for heating and plumbing to A. W. Parvin, and roofing to O. P. Stout, both of Fort Thomas; construction begun. (Lately noted.)

La., Shreveport.—Miss M. White let contract to M. T. & S. E. Carter to erect frame residence; cost \$5500.

La., Shreveport.—G. W. Adams let contract to Spencer & Hinkley to repair residence; cost \$2500.

La., Shreveport.—J. M. Carrs let contract to H. G. Hodges, Shreveport, to repair residence; cost \$2000.

Tex., Beaumont.—Dr. F. F. Sutton will erect residence; cost \$2500; J. Wellman, Contr., Beaumont.

Tex., Beaumont.—P. A. Dowlen let contract to J. Wellman, Beaumont, to erect residence; cost \$2500.

Tex., Beaumont.—J. E. Broussard let contract to Interstate Realty Co., Beaumont, to erect 5 room residence; cost \$2800.

Tex., Fort Worth.—Mrs. W. G. Newby let contract to J. T. Hardy, Fort Worth, to erect residence; frame; cost \$2400. (Lately noted.)

Tex., Fort Worth.—J. S. Bond let contract to L. L. Miller, Fort Worth, to erect brick veneer residence; cost \$4500. (Lately noted.)

Tex., Fort Worth.—Mrs. H. O. Ledgerwood let contract to L. L. Miller, Fort Worth, to erect residence; brick veneer; cost \$4500. (Lately noted.)

Tex., Fort Worth.—G. W. Apperson let contract to J. E. Locklear to erect frame residence; cost \$2500. (Lately noted.)

Tex., Fort Worth.—W. J. Bond let contract to P. N. Voss, Fort Worth, to repair residence; cost \$2000.

Tex., Fort Worth.—F. Bledsoe let contract to P. N. Voss, Fort Worth, to erect dwelling; frame; cost \$2265. (Lately noted.)

Tex., Fort Worth.—H. D. Stewart let contract to P. N. Voss, Fort Worth, to erect dwelling; cost \$2000.

Tex., Fort Worth.—W. A. Wright will erect frame dwelling; cost \$2000; P. N. Voss, Contr., Fort Worth.

## GOVERNMENT AND STATE

Ala., Anniston.—Barracks.—War Department, Washington, let contract to T. C. Thompson & Bros., Charlotte, N. C., to erect additional wooden barracks at Camp McElhaney; cost \$4500,000. (Lately noted.)

D. C., Washington.—Emergency Hospital.—Bureau of Yards and Docks, C. W. Parks,

Chief, Navy Department, let contract to Turner Construction Co., 23d and B Sts. N. W., Washington, to erect emergency hospital; cost \$300,000.

Fla., Key West.—Naval Air Station.—Bureau of Yards and Docks, C. W. Parks, Chief, Navy Department, Washington, let contract to South Florida Contracting & Engineering Co., Key West, to erect 4 additional buildings at naval air station; cost \$80,000. (Lately noted.)

Fla., Pensacola.—Platform.—Bureau of Yards and Docks, C. W. Parks, Chief, Navy Department, Washington, let contract to F. G. Proudfoot, Pensacola, to erect platform. (Lately noted.)

Fla., Fort McPherson.—War Department, Gen. R. C. Marshall, Jr., Construction Division, 7th and B Sts. S. W., Washington, let contract to Gude-Krebs & Co., Atlanta, to erect hospital building; cost about \$50,000; F. B. Wheaton, Adv. Archt., and F. M. Gunby, Adv. Engr., both of 7th and B Sts. S. W., Washington. (See Government and State.)

Fla., Huntingdon.—Chesapeake & Ohio Ry., F. I. Cabell, Chief Engr., Richmond, Va., let contract to S. W. Harrer, Huntington, to erect hospital; three stories 30x100 ft.; cost \$50,000; C. M. Robinson, Archt., Times-Union Patch Bldg., Richmond. (Previously noted.)

Fla., Newport News.—Barracks, etc.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, let contract to Harwood & Moss, Newport News, to erect barracks and other buildings at Newport News and Norfolk; cost about \$120,000.

Va., Norfolk.—Barracks, etc.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, let contract to Harwood & Moss, Newport News, to erect barracks and other buildings at Newport

News and Norfolk; cost about \$120,000.

Va., Belvidere.—Storehouses and Heating Plant.—Bureau of Yards and Docks, Navy Department, C. W. Parks, Chief, Washington, let contract to Harwood & Moss, Newport News, to erect barracks and other buildings at Newport

News and Norfolk; cost about \$120,000.

Va., Rutherford College.—Methodist Episcopal Church South let contract to Griffin Bros., Rutherford College, to erect dormitory; 90x40 ft.; brick; metal roof; wood floors; cost \$26,000. Address M. T. Hinshaw, Rutherford College. (Previously noted.)

Okla., Guthrie.—School Board let contract to Benson & Farrar to construct and install heating plant at Fifele School; cost \$2000.

N. C., Rutherford College.—Methodist

Episcopal Church South let contract to Griffin Bros., Rutherford College, to erect dormitory; 90x40 ft.; brick; metal roof; wood floors; cost \$26,000. Address M. T. Hinshaw, Rutherford College. (Previously noted.)

Okla., Tulsa.—Sinclair Refining Co., 11 W. Washington St., Chillicothe, Ill., let contract to Goodhall Construction Co., Tulsa, to erect warehouse, boiler house and filling station; 2 stories and basement; cost \$50,000. (Previously noted.)

W. Va., Wellsburg.—Eagle Glass & Manufacturing Co. let contract to B. A. Creasey to erect temporary storage building; 1 story, 50x100 ft.

Crane (Land)

Supply Co., Ky.—Price

motor crane, 100 ft. bucket, with 100 ft. boom, new or second hand.

Crane (Military)

Military Ry. p. C.—Prices

15 tons capacity

Cutting M.

Crosscut, Ex. William St.,

gins up

for export to

Cutting an.

J. H. Anderson

and cutting

Drag-Line

& Equipment

Tank Bldg.,

prices on 5

condition, 10

Electrical

Broadway, 2

electrical, su

Elevator

Statesville, 1

elevator, 1½

not less than 10

ft. with

Engines, 1

8, C.—Descri

J. P. engine

engines.

Engines, 1

217 Grav

110 to 17

200, direct

cycle genera

also 80

engine sulfu

Engines (G

under, Box

designed to age

engines.

Engines (G

under, Box

designed to age

## MANUFACTURERS RECORD.

**Crane (Locomotive).** — Roy C. Whayne Supply Co., 318 W. Main St., Louisville, Ky.—Prices on 15-ton standard-gauge locomotive crane, suitable for operating clamshell bucket, about 50 ft. boom, complete with 2-yl. clamshell; 8-wheel preferred; new or second-hand.

**Crane (Locomotive).** — Director-General Military Rys., 7th & B. Sts., Washington, D. C.—Prices on 8-wheel locomotive cranes; 15 tons capacity and up.

**Cutting Machines (Beveled Gear).** — Dill-Croft, Exporters and Importers, 128 William St., New York.—Prices on beveled gear cutting machines to cut bevels and planes up to 15-in. diam. and 3-in. face; for export to South Africa.

**Cutting and Splitting Machinery (Wood).** — J. H. Anderson, Rembert, S. C.—Prices on wood-cutting and splitting machinery.

**Drag-line Machine.** — Southern Machinery & Equipment Co., 1114 Peoples' National Bank Bldg., Lynchburg, Va.—Dealers' prices on 50-ft. drag-line machine; state condition, location and time of delivery.

**Electrical Supplies.** — B. Nordrup, 2102 Broadway, Apt. 34, New York.—Prices on electrical supplies of all kinds.

**Elevator (Belt Power).** — C. H. Turner, Statesville, N. C.—Prices on belt-power elevator,  $\frac{1}{2}$  to 3-ton capacity, platform not less than 5x7 ft., with rise of about 50 ft. with or without motor.

**Engines.** — D. W. Stewart & Co., Tatum, S. C.—Description and prices on 16 to 24 H. P. engine; also 8 to 12 H. P. vertical engine.

**Engines, etc.** — Southern Iron & Equipment Co., 217 Grant Bldg., Atlanta, Ga.—Prices on 10 to 175 H. P. oil or Diesel type engine, direct connected to 220-volt, 3-phase, 6-cycle generator; could use higher voltage; also 80 to 90 H. P. oil or Diesel type engine suitable to connect to generator.

**Engines (Gas; Oil; Electric).** — J. M. Fernandez, Box 1728, Havana, Cuba.—Prices, new to agencies, on gas, oil and electric engines.

**Evaporator.** — Walter J. Lloyd, Frances Hotel, 327 Ninth St., Miami, Fla.—Prices on second-hand evaporator, 25 to 50 bbls. capacity. (Will manufacture tanning material from palmetto roots.)

**Fire Extinguishers, Tools, Hardware, etc.** — War Dept., Hardware and Metals Division, Office of Quartermaster-General, Unit G, Potomac Park, Washington, D. C.—Bids from Oct. 29 (on portion of items) to Nov. 4 (for other items) on miscellaneous hardware, etc., including tools, rope, fire extinguishers, trucks, wheelbarrows, purchases and contracts to be made by Procurement Branch No. 1; on purchases by Procurement Branch No. 2, bids for Oct. 3 on various tools; by Procurement Branch No. 3, bids from Nov. 5 to Nov. 8 on hardware, canteen equipment, etc.; by Procurement Branch No. 4, bids for Nov. 5 on fiber trunk lockers, magnifying readers, rubber bands.

**Files (Metal).** — Lock Box 275, Crown Point, Ind.—Prices on nest of metal files to use as private boxes in bank vault.

**Geo. Cutter.** — See Milling Machine.

**Operating (Electrical) Equipment.** — See Magnet (Lifting).

**Generators (Electric).** — See Engines, etc.

**Grinding Machinery (Fertilizer and Bone Mill).** — Louisville Rendering Co., Louisville, Ky.—Prices on medium-size fertilizer and bone-mill grinder.

**Hammer (Belt).** — Guyan Machine Shops, Logan, W. Va.—Dealers' prices on belt hammer.

**Hoisting (Mine) Machinery.** — Piedmont Mining Corp., Wm. Guest, Pres.—Mgr., 102 W. Robinson St., Gaffney, S. C.—Prices on hoisting outfit; for installation Sylva, S. C.

**Irons (Angle; Channel), etc.** — Guyan Machine Shops, Logan, W. Va.—Dealers' prices on brass rods and strip brass and copper; large angle iron; channel iron  $\frac{1}{2}$ -in. x 2-in.

**Irons (Wrought).** — Woodstock Operating Corp., Anniston, Ala.—Prices on 4000 to 60,000 ft. 6x $\frac{3}{4}$ -in. wrought-iron; state lifting point.

**Iron, Steel, Hardware, etc.** — Joaquin Martinez, Lonja del Comercio 438, Habana, Cuba.—Correspondence, view to representatives (after the war), with manufacturers of hardware, iron, steel, sugar machinery

and equipment; rails, railroad cars, locomotives, etc.

**Iron (Black; Planished).** — Hot Air Gas Stove Co., 305 Center St., Little Rock, Ark.—Prices on 27 and 26-gauge black iron; 30x60-in. planished iron.

**Lathe.** — Guyan Machine Shops, Logan, W. Va.—Dealers' prices on lathe about 18 in. x 10 ft. Q. C. G.

**Locomotive.** — H. T. Lambert Co., National Bank Bldg., Huntington, W. Va.—Prices on 50, 60 or 70-ton standard-gauge switching locomotive. State complete specifications, make and where can be inspected.

**Locomotives.** — Pennsylvania Equipment Co., Philadelphia, Pa.—Prices on 30-ton gauge locomotive, about 25 tons; standard gauge locomotive, 70 to 80 tons; Consolidation or 10-wheeler.

**Lumber (White Oak).** — W. J. Haynen, Gen. Lumber Supvr., U. S. Shipping Board, Emergency Fleet Corp., 140 N. Broad St., Philadelphia, Pa.—Prices f. o. b. cars shipping point on 150 pieces 3 in. thick highest quality white oak flitch as follows: To measure at least 12 in. wide at small end on narrow side; 34, 35 or 36 ft. long, preferably 36 ft. long; free from heart, heart shake, bad season checks, split ends, and must be sawn from good, live, sound timber. May contain limited num-

magnet, complete, with electrical generating equipment; state size, also point of shipment.

**Milling Machine.** — Guyan Machine Shops, Logan, W. Va.—Dealers' prices on milling machine or gear cutter.

**Nickel Plating.** — See Castings.

**Piping, etc.** — Commrs. District of Columbia, 511 District Bldg., Washington, D. C.—Bids until Nov. 4 to furnish and install piping and boiler connections at central power plant, and ice plant at reformation and workhouse, Occoquan, Va.; proposal forms, specifications, etc., from Chief Clerk, Engr. Department, 427 District Bldg.

**Pipe (Galvanized).** — J. H. Anderson, Rembert, S. C.—Prices on second-hand 2-in. galvanized pipe.

**Planer (Frog and Switch).** — J. L. Neilson & Co., 602 Main St., Winnipeg, Man., Canada.—Wants "wired" details and prices on 12-ft. or longer (longer preferred) frog and switch planer; good second-hand condition."

**Power-plant Machinery.** — Kanawha Collieries Co., 207 Charleston National Bank Bldg., Charleston, W. Va.—Prices on power-plant machinery; mines at Swiss, W. Va.

**Pump (Steam).** — Fayetteville Ice & Mfg.

## FOR THE BENEFIT OF

ENGINEERS	ARCHITECTS	MACHINERY	DEALERS
CONTRACTORS	BANKERS	MANUFACTURERS	and OTHERS

Who find it profitable to follow up daily the industrial, commercial, railroad and financial development of the South and Southwest as published in this Construction Department,

## THE DAILY BULLETIN

is issued every business day in the year

The construction news as published in the Daily Bulletin is invaluable to all business people who want to keep in daily touch with the organization of business enterprises of all kinds throughout the whole South. Unlimited possibilities for the creation of business, for securing contract work, for the sale of machinery and supplies of all kinds, for bond buyers and others, are to be found through a close following up of the news in the Daily Bulletin.

The subscription price is \$20.00 a year. Are you a subscriber to it, or an advertiser in it? If not, you are missing an opportunity for profitable business.

The Daily Bulletin is an exceptionally desirable advertising medium.

ADDRESS: MANUFACTURERS RECORD, BALTIMORE, MD.

ber small tight knots, not impairing strength of piece; stock to be inspected at point of origin by licensed Government inspector. Mark bids Requisition BII-153-18 and BII-154-17, Attention Desk F.

**Lumber (White Oak).** — W. J. Haynen, Gen. Lumber Supvr., U. S. Shipping Board, Emergency Fleet Corp., 140 N. Broad St., Philadelphia, Pa.—Prices f. o. b. cars shipping point, naming freight rate to Newark, N. J., on 10,000 ft. B. M. 3x4—random lengths, sound, square-edged white oak, rough; 10,000 ft. B. M. 3x18—12 ft. Mark bids Requisition No. 15220, Attention Desk F.

**Lumber (White Oak).** — W. J. Haynen, Gen. Lumber Supvr., U. S. Shipping Board, Emergency Fleet Corp., 140 N. Broad St., Philadelphia, Pa.—Prices f. o. b. cars shipping point, with freight rate from same to Philadelphia, on 75 psc. 5x12—16, 6000 ft. B. M. best quality, sound, square-edged white oak, in rough; 75 psc. 6x6—16, 3000 ft. B. M. white oak, rough; 200 psc. 6x7—6, 4200 ft. B. M. white oak, rough; 20 psc. 12x12—20, 4800 ft. B. M. white oak, rough; total, 18,000 ft. B. M. Mark bids Requisition C-9646, Attention Desk F.

**Magnet (Lifting).** — Woodstock Operating Corp., Anniston, Ala.—Prices on lifting

Co., Fayetteville, N. C.—Prices on steam pump for prompt delivery; 10x10x10, 8-in. suction, 6-in. discharge.

**Railway Equipment.** — Joaquin Martinez, Lonja del Comercio 438, Habana, Cuba.—Prices on rails, railroad cars, locomotives, etc.; view to representation. (See Iron, Steel, Hardware, etc.)

**Road Construction.** — Harris County, H. L. Washburn, County Auditor, Houston, Tex.—Bids until Nov. 4 to resurface Clinton Road; specifications on file with County Engr.

**Road Construction.** — Lamar County Comr., Vernon, Ala.—Bids until Nov. 22 to grade, drain and surface with gravel Sulligent and Hamilton Road, being part of State Trunk Road No. 18, between Sulligent and Marion County line; 6.14 mi. clearing and grubbing; 31,634 cu. yds. earth excavation; 400 lin. ft. vitrified clay pipe; 405 ft. corrugated iron pipe; 26,397 ft. B. M. lumber in bridges, etc.; plans and specifications on file with W. S. Keller, State Highway Engr., Montgomery, Ala., and with Probate Judge, Courthouse, Vernon.

**Roasters (Coffee).** — See Baking Machines, etc.

**Roofing (Tin).** — Paul Siebenleicher, Gonzales, Tex.—Prices on tin roofing for barn.

**Saw (Cold).** — American Forge & Machine Co., Canton, Ohio.—Prices on 42 or 48-in. Newton or Lucas cold saw, motor drive; state condition and where can be inspected.

**Shafting (Cold Rolled), etc.** — Guyan Machine Shops, Logan, W. Va.—Dealers' prices on cold-rolled shafting 1 3/16-in. to 5 7/16-in.; also drop hangers, about 12-in. drop for 2 3/16-in. shafting; borings 1 3/16 in. to 1 in. thick.

**Starch Machinery.** — Dill-Croft, Exporters and Importers, 128 William St., New York.—Prices on maize starch manufacturing machinery for export to South Africa.

**Steel (Disc Harrow).** — Byon Nicholls, Waterloo, B. C.—Prices on disc harrow steel; dimensions 12 in.,  $\frac{3}{4}$ -in. thick; for cotton chopper wings.

**Stove Legs.** — Hot Air Gas Stove Co., 305 Center St., Little Rock, Ark.—Prices on stove legs.

**Sugar Machinery.** — Joaquin Martinez, Lonja del Comercio 438, Habana, Cuba.—Prices on rails, railroad cars, locomotives, etc., for sugar production. (See Iron, Steel, Hardware, etc.)

**Tile Block Machinery.** — Paul Siebenleicher, Gonzales, Tex.—Prices on molds, etc., for manufacturing tile blocks.

**Tinners' Tools and Machinery.** — Guyan Machine Shops, Logan, W. Va.—Dealers' prices on tinnings' tools and machinery.

**Valves.** — Hot Air Gas Stove Co., 305 Center St., Little Rock, Ark.—Prices on adjustable gas valves for stoves.

**Water-works.** — City of Wilmington, N. C., Thos. D. Meares, City Clerk.—Bids until Nov. 18 for improvements and enlargements water-works pumping station at Hilton Park; 100-ft. light-weight cast-iron flanged 14-in. diam. suction pipe with strainer, foot valve and gate valve; 100-ft. discharge pipe with elbows, check valves and gate valves; 5,000,000-gal. centrifugal pump for lifting raw water from Cape Fear River and discharging into sedimentation basin, total head, including suction, 50 ft.; steam-driven turbine engine or double vertical double-acting engine, f. o. b. cars Wilmington; unloading from cars, hauling and erecting; concrete foundation for pump and housing; reinforced concrete reservoir with brick baffle walls, sump pit, outlet valve and drain pipe; 7000 cu. yds. earth excavation and disposal; 4 filter units, each 500,000 gals. daily capacity; two 20x30-ft. storerooms, built as second story on present pumping station; including ventilators, stairways, etc., also removing present 8-in. wall and substituting iron columns and cross beams to support upper story; bidders to submit with proposals, plans and specifications covering types of pump and filters offered; blanks and information obtainable from J. Newton Johnston, City Engr.; bidders requested to visit site and see plans and specifications on file Engr.'s office; bids received on whole or portion of items.

**Water-works Supplies.** — City of Tulsa, Okla., Chas. F. Burke, Auditor.—Bids until Oct. 31 to furnish cast-iron pipe, valves, specials, hydrants, etc.; also for laying piping, placing hydrants, etc.; information and proposal sheets from Commr. of Water and Sewers.

**Wheels (Car).** — Guyan Machine Shops, Logan, W. Va.—Dealers' prices on car wheels, 8-in. to 12-in.

## RAILROAD CONSTRUCTION

## RAILWAYS

Ga., Columbus.—The W. Z. Williams Co. of Macon, Ga., has the contract for building the 8-mi. railroad at Camp Benning to connect with the Southern Railway and the Central of Georgia Railway. A big force is already at work. Maj. J. Paul Jones is in charge.

W. Va., Grafton.—Vang Construction Co. of Cumberland, Md., has contract to enlarge the Grafton yards of the Baltimore & Ohio R. R. It also has a contract for improvements at Riner, near Terra Alta. H. A. Lane, Baltimore, is Chief Engr.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Capital and Surplus  
\$4,000,000



Total Resources  
\$38,000,000

## The Largest National Bank in the South

Liberal Accommodations to Manufacturing Corporations

**MERCHANTS-MECHANICS  
FIRST NATIONAL BANK  
OF BALTIMORE**

**THE NATIONAL EXCHANGE BANK  
OF BALTIMORE, MD.**  
Hopkins Place, Redwood and Liberty Sts.  
Capital \$1,500,000.  
Surplus \$850,000.

OFFICERS.  
WALDO NEWCOMER, President.  
SUMMERFIELD BALDWIN, Vice-Pres.  
CLINTON G. MORGAN, Cashier.  
JOSEPH W. LEFFLER, Asst. Cashier.  
WILLIAM R. WEBB, Asst. Cashier.  
Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

**Maryland Trust Company  
BALTIMORE**

Capital \$1,000,000  
TRANSACTS A GENERAL TRUST AND  
BANKING BUSINESS

Correspondence and interviews  
invited.

**Philadelphia Detroit Dallas  
Powell, Garard & Co.  
39 South La Salle St.  
Chicago**

We buy Southern Municipal Bonds  
(County, City, School, Road and Drainage District.)

**JOHN NUVEEN & CO.**

First National Bank Building, CHICAGO

We purchase SCHOOL, COUNTY and  
MUNICIPAL BONDS. Southern Municipal  
Bonds a Specialty.

Write us if you have bonds for sale.

**First National Bank**

RICHMOND, VIRGINIA

Capital and Surplus \$3,000,000  
JNO. M. MILLER, Jr., President  
W. M. ADDISON, Vice-Pres. & Cashier  
CHAS. R. BURNETT, Vice-President

**THE BANK OF ALABAMA**

ENSLEY, ALABAMA

R. A. TERRELL - President  
J. W. MINOR - Vice-President  
FOSTER HAMILTON Cashier

We Solicit Your Business

**WE BUY BONDS** CITY, COUNTY  
SCHOOL and DISTRICT  
Correspondence Invited from Officials and Contractors  
**SIDNEY SPITZER & CO.** New York Cincinnati Toledo  
Southern Branch: BELL BUILDING, MONTGOMERY, ALA.

**CONTRACTORS AND MANUFACTURERS**



TIME  
CHECKS

We Make Them Promptly.

Headquarters for SEALS, STOCK CERTIFICATES, STENCILS,  
STEEL DIES, BRASS SIGNS, ENAMEL PLATES,  
MEMORIAL PLATES, CHURCH SEALS and PEW PLATES.  
Made on our Premises. Send for Catalogue.

**THE J. F. W. DORMAN COMPANY**  
BALTIMORE, MD.

**Delaware Corporations  
Forms Law and Pointers  
Estimates of Cost furnished without cost**

**Delaware Registration Trust Co.**  
900 MARKET STREET  
Wilmington, Del.

J. Ernest Smith, President & Gen. Counsel  
Chas. Warner Smith, Vice-President  
Harry W. Davis, Secretary and Treasurer

**CHARLES F. HOLDEN CO.**  
Insurance Agents and Brokers  
110 Washington St. ALEXANDRIA, VA.  
Southern Bldg. Times Dispatch Bldg.  
Washington, D. C. RICHMOND, VA.

Represented in  
New York, N. Y.; Roanoke, Va.

**I Have You Considered  
Exchanging Securities?**

You may be able to obtain a stronger security yielding as much as one you now hold; or a considerably higher yield from a security of equal strength. We shall be glad on request to make definite suggestions to meet individual requirements.

Write for Circular AG-89

**A. B. LEACH & CO., Inc.**  
Investment Securities

62 Cedar St., New York

Chicago Boston Buffalo Cleveland  
Philadelphia Baltimore Minneapolis

**Want Government Work?**

No cancellation of orders or other troubles by our method of representation here. Get our proposition of how we are working for other manufacturers here.

**National Manufacturers Bureau**  
906 Union Trust Bldg., Washington, D. C.

Write us about investment in Birmingham  
Real Estate.

**Jemison Real Estate & Insurance Co.**  
Real Estate  
General Insurance, Loans

211 N. Twentieth St. BIRMINGHAM, ALA.

**D. H. BURGESS & CO.**

Exporters Importers

P. O. Box 115 PETERSBURG, VA.

Write us your needs in all  
lines of business.

## FINANCIAL NEWS

### NEW FINANCIAL CORPORATIONS

Ala., Monroeville.—Bank of Monroeville, capital \$25,000, began business Sept. 25. James K. Keyser, Pres.; A. C. Lee, V.-P.; Jno. M. Coxwell, Cashier. (Lately noted.)

Fla., Largo.—Pinellas County Bank, capital \$20,000, inceptd. John S. Taylor, Pres.; J. A. Walsingham, 1st V.-P. and Tres.; J. S. McMullen, Cashier.

Ga., Macon.—Continental Bank & Trust Co. will change its name to the Continental Trust Co.

Ga., Quitman.—First National Bank, Inc., has purchased the assets of the Citizens' Bank; capital \$150,000; surplus \$75,000. D. G. Malloy, Pres.; P. G. Stanley, C. T. Tillman and J. R. Davis, V.-Ps.; L. M. Bradford, Cashier. Business began August 20.

Ga., Waycross.—Commercial Bank, capital \$50,000, is about to begin business; L. O. Benton, Monticello, Pres.; K. F. Rymer and P. A. Hay, Waycross, V.-Ps.; J. M. Norman, Act. Cash.

La., Pointe Coupee.—Pointe Coupee Trust and Savings Bank, capital \$60,000, is reported inceptd.; A. B. Lacour, Pres.; O. C. Morgan and Muniford Phillips, V.-Ps.; J. A. Langlois, Cash.

La., Covington.—Commercial Bank & Trust Co., capital \$50,000, surplus \$5000, began business Oct. 1. E. J. Domergue, Pres.; W. E. Morris, New Orleans, V.-P. (Lately noted.)

Md., Newark.—A new bank is reported being organized by R. F. Powell and John L. Mason.

Miss., Hattiesburg.—Bank of Hattiesburg changed its name to the Bank of Hattiesburg & Trust Co., effective Aug. 1, 1918. At the same time capital was increased from \$50,000 to \$75,000 and surplus from \$25,000 to \$37,500.

S. C., Bethune.—Merchants & Farmers' Bank chartered, capital \$20,000. John T. Stevens, Pres.; W. M. Stevens and W. E. Davis, V.-Ps.

Okla., Dustin.—Farmers' State Bank chartered, capital \$15,000. Incorporators: F. A. Seward, L. Meaders and C. E. Morgan.

Tex., Everman.—First State Bank chartered, capital \$10,000.

Tex., Marietta.—Local parties are reported organizing a new bank.

Tex., Ralls.—State Bank & Trust Co., capital \$60,000, is authorized to begin business. W. E. McLaughlin is Pres.

Fla., Miami Beach.—(Water-works).—City votes Nov. 18 on \$40,000 of bonds for develop-

### NEW SECURITIES

Fla., Miami Beach.—(Water-works).—City votes Nov. 18 on \$40,000 of bonds for develop-



This bank offers a special service to Southern brokers, manufacturers, shippers and banks for the collection of drafts, particularly B/L drafts on Chicago and other Northern points. Please write us for particulars.

We also solicit correspondence and interviews with high-grade Southern concerns regarding a direct Chicago banking connection.

**UNION TRUST COMPANY**

CHICAGO

Capital and Surplus, \$3,000,000.00

Deposits, \$34,000,000.00

Established 1869

**FOR SALE** Timber, Coal, Iron, Ranch  
and other Properties  
Southern States, West Indies, Mexico.  
**GEO. B. EDWARDS**  
(Broker)  
22 Broadway NEW YORK, N. Y.  
Confidential Negotiation. Investigations.  
Settlements and Purchases of Property.

ment of water works system. J. N. Lummon, Mayor; J. F. Canova, City Clerk.

La., Alexandria.—(Road).—Rapides Parish Police Jury, T. C. Wheaton, Pres., asks bids until noon Nov. 18 for \$75,000 of 5 per cent. bonds, Road Dist. No. 14. Further particulars will be found in the *Proposed Department*.

Miss., Hattiesburg.—(Water-works).—City, on Oct. 12, sold to Well, Roth & Co., Chicago, at accrued interest, blank bonds and \$1200 premium, \$25,000 of bonds; T. E. Bigson, Mayor.

Miss., Meridian.—(School).—Lauderdale County, W. R. Pistole, Chancery Clerk, sold Oct. 3, at \$150 premium and accrued interest, to the Citizens' National Bank of Meridian, \$5000 of bonds Dry Creek Consolidated School Dist. (Lately noted.)

Mo., Platte City.—(Bridge).—City is reported to have sold \$20,000 of bonds. Address The Mayor.

N. C., Greensboro.—(School).—City will vote in January on \$40,000 of bonds. J. Norman Wills, Chancery School Board.

N. C., Winston-Salem.—(Street).—Ordinance has been prepared providing for the issuing of \$12,000 of 6 per cent. 10-year bonds. Address Board of Aldermen, W. H. Holcomb, Secy.

Okla., Garber.—(Water-works).—City voted \$25,000 of bonds. Address The Mayor.

Tex., Big Springs.—(Road).—Howard County recently defeated \$75,000 bond issue. Address County Comr.

Tex., Corpus Christi.—(Seawall).—City has had approved by Atty. Gen. \$60,000 of 5 per cent. serial bonds. Address The Mayor.

Tex., Dublin.—(Road).—Road Precinct No. 1, Erath County, voted \$150,000 bonds. Address County Comr.

Tex., Fort Worth.—(Road).—Tarrant County plans to vote on \$400,000 of bonds; Gen. E. Hausey, County Judge.

Tex., Fort Worth.—(School).—Gentle Common School Dist., Tarrant County, votes Oct. 28 on \$5000 of bonds. Address County Comr.

Tex., Greenville.—(Road).—Hunt County, Sept. 28, defeated \$200,000 of Commerce Dist. bonds. Address County Comr.

Tex., Magnolia Park, P. O. Houston—Warrants.—Magnolia Park recently sold to J. L. Arlett, Austin, Tex., \$20,000 of 7 per cent. bonds, maturing serially from 1919 to 1943.

Tex., Rohr.—(Road).—Road Dist. 3, Fisher County, voted \$60,000 of bonds; M. A. Hopkins, County Judge.

Tex., Vernon.—(Street, Water).—City contemplates issuing \$25,000 of bonds. Address The Mayor.

### Book Reviews.

**Thy Son Liveth: Messages from a Soldier to His Mother.** Boston. Little, Brown & Co., 1918. Price 75 cents.

This unusual book may convey consolation to many who have suffered bereavement in the loss of loved ones. The writer, whose name is not disclosed, relates that her son, who was an amateur operator of wireless telegraphy, told her before going abroad that he would try to get in touch with her through the medium of his small wireless station at home, the use of which she had learned from him. One day, while she was reading a happy letter just received from him by mail, a call came upon the wireless in which he said: "Mother be grieve, I am alive and long you. But my body is with thousands of other mothers' boys near Lens. Get this fact to others if you can. It's awful for us when you grieve and we can't get in touch with you to tell you we are all right," etc. This is one of four wireless telegrams received, after which automatic writing became the medium of spirit communication. All of them are interesting and very human in their contents. The idea that there is no extinction in death is emphasized again and again. In the foreword the publishers say that the manuscript of the book came from an author known to them, and of whose sincerity they were convinced. Realizing that the messages were "no ordinary spirit communications," they asked for further

information, to which the author responded: "I ask you to regard the book as truth, unaccompanied by proofs of any sort, making its own explanation and appeal."

Fuel Economy in Boiler-rooms. By A. J. Maujer and Charles H. Bromley. Second Edition. 308 pages. New York: McGraw-Hill Book Co., Inc.; London: Hill Publishing Co., Ltd. 1918. Price \$2.50.

The title of this book in its first edition was "Fuel Economy and CO<sub>2</sub> Recorders," but its scope has now been broadened, and the new title more accurately covers its contents. The volume is very comprehensive, its chapters successively treating of the principles of combustion, analysis of coal, flue gas analysis, heat lost in flue gases, draft and its measurement, chimney design, evaporation, boiler efficiency, heat balance, feed-water treatment, CO<sub>2</sub> recorders, fuels, combustion of coal in boiler furnaces, boiler settings, hand-firing soft coal, burning fuel oil under boilers, combustion losses in boiler operation, operation of mechanical stokers and economical boiler ratings. There is much data in tabular forms and a number of pictures and diagrams. Mr. Bromley says in the preface that although the book is intended

primarily for the student, the fireman and the power plant operating engineer, the consulting engineer will also find it useful. Constructive criticism and suggestions are desired. The volume is handsomely bound in green cloth, with gilt lettering.

Poems With a Punch for Patriotic People. Published by H. E. Negley, author and compiler. Indianapolis, Ind. Paper cover. Price 50 cents.

This little book has been prepared, according to Mr. Negley, with his original work and other selections either germane or entertaining, with the ends in view of describing certain phases of the war, certain phases in the life of the soldier as well as of his home folks, besides providing him with a volume of such dimensions that he may keep it with him for entertainment and also for assurance "that the folks back home are behind the game to the limit." He has combined with much fruit of his own pen of real merit some of the best of the current war poetry, together with a number of old favorites which everyone likes to reread now and then for their cheer and for the treasured memories they awake. The volume (only 110 pages) will be welcome to many a man in our service across the sea as well as those at home.

## INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

### Oil Engine for Electric Plant.

The town of Belhaven, N. C., has purchased from Fairbanks, Morse & Co., Inc., through the Atlanta office, a 100-horse power crude-oil engine for operating the town electric-lighting plant which has heretofore been operated with steam power. The new engine will be directly connected to a General Electric alternator with direct connecting ex-

### Page Steel & Wire Co. Changes.

C. D. Morton has left his position as sales engineer for the Page Steel & Wire Co. to become a captain in the General Engineer Depot, U. S. A., at Washington.

Chas. E. Goodnow, formerly assistant sales manager of the electrical and special wire department of the American Steel &

(Continued on next Page)

**York Safe and Lock Company**  
MANUFACTURERS OF  
**SAFES and VAULTS**  
YORK, PA. BALTIMORE, MD.

## Don't Pay Freight on Poor Fuel!

You pay the same freight on poor fuel as on good fuel. Consider the small difference in the cost of good fuel at the mines as compared with poor fuel, and pay freight only on good fuel. Consolidation Coal is a combination of heat and efficiency. Let us tell you what Consolidation Coals will do for you.

Georges Creek Big Vein Coal, Somerset Smokeless Coal, Fairmont Steam Gas Coal, Millers Creek Block Coal and Elkhorn Coking, By-Product and Gas Coal. Each with a distinct and tested heating value.

## THE CONSOLIDATION COAL CO.

INCORPORATED

F. W. WILSHIRE, General Manager of Sales  
BANKERS' TRUST BUILDING, 14 WALL STREET  
NEW YORK, N. Y.

### BRANCH OFFICES

Boston	London, England	Baltimore	Chicago
Portsmouth	New York	Washington	Cincinnati
New Haven	Philadelphia	Genoa, Italy	Louisville
			Detroit

Northwestern Fuel Co., Pioneer Press Bldg., St. Paul, Minn.

## LOANS MADE TO STATES, CITIES, COUNTIES, ETC.

### Also Entire Issues of Bonds of Successful Industrials Purchased

Largest Capital and Surplus of Any Financial Institution in Maryland or Any Southern State.

Established 1884

Resources \$21,000,000

## MERCANTILE TRUST and DEPOSIT CO. OF BALTIMORE

A. H. S. POST, President

F. G. BOYCE, Jr., Vice-President

CHARLES L. HEHL, C. P. A., President JOHN KUCHLER, C. P. A., Vice-President  
ERNEST E. WOODEN, C. P. A., Sec. and Treas.

## BALTIMORE AUDIT COMPANY

901-903 Calvert Building

BALTIMORE, MD.

## MR. CONTRACTOR

If you have any bonds or warrants to sell, or know where you can obtain work and take same in payment, kindly advise, so that we can negotiate with you for their purchase. We have representatives in Birmingham, Alabama, Tampa, Florida and New Orleans, Louisiana. Correspondence solicited.

W. L. SLAYTON & CO.

Toledo, Ohio

## SERVICE TO MANUFACTURERS, CONTRACTORS and BUSINESS PEOPLE

We will represent you in Washington and undertake the sale of your products to the Government and contractors for the Government.  
AGENCY SERVICE CORPORATION  
Suite 403 Maryland Building 1410 H St. N. W., Washington, D. C.

## HAVE YOU BONDS FOR SALE?

WE BUY ALL CLASSES OF MUNICIPAL BONDS, INCLUDING CITY, COUNTY, SCHOOL, PAVING, ROAD AND DRAINAGE

*The Hanchett Bond Co. Inc.*  
39 SOUTH LA SALLE ST., CHICAGO

## Strayer's Business College, Inc.

Charles and Fayette Sts.  
Baltimore, Md.

Ninth and F Sts. N. W.  
Washington, D. C.

Fully accredited by the National Association of Accredited Commercial Schools. Teaching latest methods in Shorthand, Typewriting and Commercial Subjects. Departments headed by Degree Teachers.

The Government needs TEN THOUSAND STENOGRAPHERS, and a representative of the Civil Service Commission visited Strayer's Business College recently and urged us to provide as many as possible.

This is YOUR opportunity. Classes now open. Day and Night School all the year. Enroll at once. Write us today.

## HIGHLAND PINES INN

Open From December 1st to May 1st

Superb Climate. Not too cold or yet too hot. The resort with the just-right weather.

Accessibility. Only a day or night from New York or Florida on the splendidly equipped trains of the Seaboard Air Line Railway.

Extensive and delightful views in all directions. Adjacent to 18-hole course of Southern Pines Country Club. Good automobile roads. Excellent hunting. Consumptives not received.

## HIGHLAND PINES INN

Weymouth Heights, Southern Pines, N. C.

"JUST FAR ENOUGH SOUTH"

is near several army camps, two of which are:

**CAMP BRAGG**—A brigade artillery camp with remount station near Fayetteville. This camp will accommodate 54,000.

**CAMP GREEN**—A guard camp, Base Hospital Depot, near Charlotte, N. C. This camp will accommodate 40,000.

A. I. CRAMER, M. H. TURNER, Proprietors

(Continued from preceding Page)

Wire Co., and more recently identified with building construction in Washington and Brooklyn for the army and navy, is now with the Page Steel & Wire Co., 30 Church St., New York. His energies will be devoted to sales and service on Armeo iron welding rods and Copperweld electrical wire.

#### New Secretary Chosen.

The Chicago Pneumatic Tool Co. announces the election of H. D. Megary as secretary to succeed W. B. Seelig, resigned.

#### New Officers Appointed.

The Barber-Greene Company announces the strengthening of its organization as follows: F. E. Smith, chief engineer, formerly of the engineering department of the Stephens-Adamson Manufacturing Co., of the Granby Mining & Smelting Co. and the American Zinc & Chemical Co.; George C. Sanford, superintendent, formerly of the Elevator Supplies Co. and the Otis Elevator Co.

#### Important Sale of Coal Lands.

Announcement is made in another column that 5300 or more acres of coal lands will be sold at public auction at 10 A. M. November 12, at Newburg, Preston county, W. Va., together with a large amount of mine timber and 25 dwellings, the coal consisting of 2000 acres of Lower Kittanning, 2000 acres of Upper Freeport, an unknown quantity of Pittsburgh Big Vein and 1300 acres of surface coal. Further information may be obtained from the Virginia-Maryland Coal Corporation, Marine Bank Bldg., Baltimore, Md. The property is on the main line of the Baltimore & Ohio Railroad.

#### A Seasonable War-Time Circular.

The American Rolling Mill Co., Middletown, O., is distributing, in its outgoing mail, copies of a circular issued by the Chamber of Commerce there, and named "The Monstrous Thing Called 'Kultur'." Within is an illustration showing one of the spiked clubs captured from the Germans during a raid, when 32,000 of these cruel instruments of warfare were taken. "This instrument," it says, "is used to kill the enemy wounded, thus saving the necessity of taking and feeding prisoners." On the opposite page is a picture, "The Superman," which is a photograph of a German prisoner, who is described as "a product of the 'Kultur' which goes hand in hand with the club." Several extracts from the writings of prominent Germans illustrating their aim to dominate the world by "Kultur" are also given in the circular. C. C. Lynd, Healy Bldg., Atlanta, Ga., is Southern district manager for this company.

#### Up-to-date Welding Plant Established.

The Welded Products Co., Birmingham, Ala., announces that its plant is near completion and as it has already installed equipment it is prepared to consider immediate additional contracts and to execute orders. Its facilities will cover the entire field of autogenous welding, including, besides its large oxy-acetylene installation, both thermit and electric-welding processes. Among the standard products which the plant will handle are all kinds of tanks, condensers, separators, boilers, pipe coils, gear rails, stacks, chutes, steel truck bodies, containers, buckets and all other fabricated metal products which may be handled by the autogenous process to eliminate riveted or bolted joints. The company is employing the highest skilled operators, specialists in welding and cutting; in technical understanding and experience in the treatment of metals. The service department will handle repair work and outside construction, portable welding and cutting plants being moved by its motor trucks to any job which cannot be brought to the main plant.

#### Value of Advertising in the Manufacturers Record.

The Birmingham Slag Co., 1607-1616 Jefferson County Bank Bldg., Birmingham, Alabama, writes to the MANUFACTURERS RECORD, under date of October 22, as follows:

We received a letter from a New York firm, Export & Import Merchants, a few days ago, copy of which is attached hereto.

We believe that this letter will be of interest to you as it is to us, because we feel that this inquiry, for quotation, is directly traceable to the advertisements that we have run in your splendid magazine from time to time in the past.

The Birmingham Slag Co. is covering some territory when New Zealand is in the mar-

ket for blast-furnace slag and a New York broker writes us to quote them on slag f. a. s. New York for export to New Zealand. This is indeed a very fine testimonial for the value of advertising space in the MANUFACTURERS RECORD, and it occurred to the writer that your editorial staff could possibly use this letter to advantage. If so, you are at liberty to do so, in so far as we are concerned, but would ask that you kindly withhold the name of the firm asking for quotation.

Yours truly,  
BIRMINGHAM SLAG CO.,  
C. E. IRELAND, Sales Manager.

The inquiry is as follows:

New York, October 14, 1918.  
The Birmingham Slag Co.,  
Jefferson County Bank Bldg.

RE: V13: Iron Manure (Slag).

Gentlemen—Our representative in New Zealand has written us requesting us to quote on iron slag, and we will thank you to be good enough to advise us whether you are in a position to quote us on this commodity, as we are informed that there is quite a demand for same.

As stated above, this commodity is intended for export to New Zealand, and when quoting it is essential that you include the following:

1. Your best price per ton, f. a. s. New York.
2. Method of packing for ocean transportation, stipulating net and gross weights and cubic measurements.
3. Best delivery you can make per month, stating quantity available.
4. Send sample of slag quoted on.
5. State your best terms.

Trusting to be favored with a reply at your earliest convenience, we beg to remain,  
Yours,

FOR THE FOURTH LIBERTY LOAN.

#### TRADE LITERATURE

##### Desk Memorandum and Calendar Pads.

The Central Frog & Switch Co., Cincinnati, O., is distributing desk memorandum pads containing a calendar running from October, 1918, to March, 1919, both inclusive. This company is a manufacturer of track equipment in all of its various forms and details.

##### New Sales Manager.

Sherritt & Stoer Company, Inc., manufacturer of machine tools, railway and machine shop equipment, 603 Finance Bldg., Philadelphia, has engaged Frank H. Brown as sales manager, and he has assumed his new duties. Mr. Brown was one of the founders of the Brown & Zortman Machinery Co., Pittsburgh, and was more recently with the Davis Machine Tool Co. of Rochester, N. Y. He is widely known in these lines of business.

##### Electric Trucks, Tractors, Etc.

In Bulletin 18-2 the C. W. Hunt Company, Inc., 501 Fifth Ave., New York, describes the Hunt storage battery industrial trucks, tractors and trailers, this including the standard machines, besides several types equipped with side and end dumping bodies and crane. They are widely employed for the transportation of manufactured products, as well as bulk materials in industrial plants, warehouses, steamer and railroad terminals, etc. They combine simplicity and strength. The book contains superior illustrations, accompanied by full specifications of the different types of machines. Copies of it will be forwarded by the company to any address upon request.

##### Savannah Builders' Exchange Prospering.

John N. Davis, secretary-treasurer of the Savannah Builders' Exchange, writes that it is in splendid condition, notwithstanding other conditions and being one year old. Its new president, A. W. Morehouse, in his address at the annual meeting recently, said that as the war is now curtailing improvements and taxing our resources to defeat the enemy, "so will the after-the-war period tax the brain and muscle of this country to feed and clothe the hungry masses of Europe." \* \* \* This means great agricultural and industrial activity for this country, such as we have never witnessed before."

##### Deep Well Power Pump.

A finely illustrated catalog relating to the non-pulsating, double-stroke, deep-well power

pump manufactured and sold by the United Iron Works Company, Kansas City, Mo., under license from the Pomona Manufacturing Company of Pomona, Cal., has been issued. It says that the pump is designed for the economic pumping of municipal and public service water-works, permanent and quick mine drainage, mine or shaft-sinking, dewatering mines, private and railroad water supply, manufacturing and other industrial plants, ice-making, boiler feed, condenser purposes, hydraulic elevators, irrigation and drainage, fire protection, and also all general or special pumping. It pumps from any practical depth desired, and ranges in capacity from 25 to 2000 gallons per minute, being practical for pressure up to 300 pounds per square inch. Full descriptions and tables are given.

##### Handy Booklets About Zinc Products.

The New Jersey Zinc Co., 55 Wall St., New York, has put out a new set of four booklets, entitled, respectively, "Pigments," "Metals," "Rolled Zinc," and "Zinc Dust," which it collectively calls its "Handy Reference Library of Zinc Products." Each booklet describes certain of the company's zinc products, giving information that the average person might like to have. Copies will be sent on request to "legitimate firms interested in zinc." About January 1 the company expects to occupy its new office building at Maiden Lane and Front St., New York.

##### Hand Book of Oil, Paint and Drug Trade.

The fall edition of the Green Book for Buyers, issued by the Oil, Paint and Drug Reporter, has been published for 1918. It is a complete directory, containing the names and addresses of first hands in the various products which enter into the numerous branches of the oil, paint and drug trade, and it includes manufacturers, importers and large dealers in comprehensive form. The contents are alphabetically arranged as to the various articles, but there is also a comprehensive index. The book is of such dimensions that it may be easily carried in the pocket, the pages being narrow, yet the printing is superior, and the paper excellent, the quality of the whole being maintained. The address of the publishers is 100 William St., New York city.

##### Pit Car Loader for Mining.

A fine, clear half-tone picture adorns the cover page of Bulletin No. 246 of the Jeffrey Manufacturing Company, Columbus, Ohio, and shows the pit car loader made by this concern at work in a coal mine. The bulletin says that the advantage of this light, inexpensive conveyor is that its usefulness is not seriously affected by the various delays that are unavoidable in coal mines; for instance, if the conveyor is compelled to remain idle for, say, 15 minutes, in waiting for car, the men will have work to do in the meantime. They may pull down coal from the face, or else load up the front end of the conveyor so as to have a carload ready without shoveling when a fresh car is obtained. Increased output of coal is also secured, for the men can double the number of cars loaded per shift.

##### Sterling Grinding and Polishing Machinery.

L. Best & Company's latest catalog of Sterling grinding wheels and machinery displays the merits of the large line carried at their establishment, 75 Barclay St., New York city. The grinding wheels, it is stated, will run wet or dry, are free-cutting and even tempered, free from dust and smell, and will not glaze or heat. Polishing machinery and supplies are also illustrated and described in this comprehensive book of 72 pages. The pictures are clear and distinct, and the information, including tables, is complete in every detail. There are also suggestions and other advice concerning the care of grinding wheels and machinery, all of which is valuable to users of these products.

##### Tate-Jones Furnaces.

Heat-treating furnaces of large capacity are considered in the latest catalog of Tate-Jones & Company, Inc., furnace engineers, Pittsburgh. One of the pictures it contains

shows three of these furnaces of unusual dimensions installed in a large plant in the Pittsburgh district. They are of the ear type, and are used for heat-treating large forgings. Each furnace is 42 feet long, by it is said that accurate temperatures are maintained over the entire furnace in spite of its size. Several other illustrations relate to furnaces of other sizes, but all of them large. The company also manufactures small furnaces for similar uses, besides complete oil and gas-burning installations. The company's engineering staff is always at hand to solve knotty problems submitted by manufacturers who in special conditions to be overcome. It is composed of men of technical training who have also had practical experience in furnace work.

##### Makes Airships and Other Machinery.

Airships, peanut machinery, garbage disposal machinery and fuel-plant machinery are described and illustrated in Catalog No. 100 of the Richmond Manufacturing Company, Enid, Okla., and Phoenix, Ariz., which says that its facilities are "also for manufacturing anything to help our Government win the war." The airship was designed by G. E. Richmond, president of the company. It is said to be puncture-proof, the numerous gas bags which support it being so arranged that a shot could not penetrate them, and the aluminum tops to the machine act as parachutes, already spread so that in case of accident it safely descends to the ground. It is driven by a gasoline motor, which charges electric batteries that also can be used as motors when quiet operation is necessary to prevent detection by the enemy. A threshing machine which prevents grain going through to the straw pile is an invention of Mr. Richmond. Peanuts and beans may also be threshed. Still another of his inventions is a fuel-making machine, which is likewise illustrated and described.

##### Important Consolidation Announced.

The W. J. Crouch Company Inc., and Rownson, Drew & Clydesdale, Inc., announce their amalgamation. Hereafter all of their trading and manufacturing operations will be conducted under the name of Rownson, Drew & Clydesdale, Inc., with general offices at 68 William St., New York. P. G. Donald, president of Rownson, Drew & Clydesdale, Inc., will continue in that position, and J. Smulian, president of the W. J. Crouch Company, Inc., will act as managing director of the new firm. Victor E. Karminski and A. E. Hearne, the former with the Crouch Company and the latter with the other concern as treasurer and general manager, will hereafter act as joint general managers of the new concern. Mr. Karminski conducting the Crouch steel division and Mr. Hearne directing all other trading. The engineering division of Rownson, Drew & Clydesdale will be further developed and expanded to meet the much greater demand for their gravity runways, portable elevator conveyors and other labor-saving devices, this to be done under the direction of John J. Smart, secretary and assistant general manager of the Crouch Company. H. Lad Landau, assistant secretary and general sales manager of the latter, will continue in that capacity, and John H. Allen will remain purchasing agent, assisted by M. Greenberg of the other company. Albert Smulian, O. W. Andrews, traffic manager, and other heads will also continue in the employ.

#### OBITUARY.

##### Death of John P. Hopkins.

John P. Hopkins, chairman of the board of directors of the Independent Pneumatic Tool Co., Chicago, died at his home in that city on October 13 as the result of an attack of influenza. He was ill only a few days. Mr. Hopkins was native of Buffalo, N. Y., and was 60 years of age. He moved to Chicago in 1890, and worked as a machinist with the Pullman Palace Car Co. Then he was a partner in the firm of Seely & Hopkins, dealers in general merchandise, at Pullman, Ill., laying there the foundation of his fortune. He became interested in the tool company in 1906. He was mayor of Chicago in 1893 and 1894, serving for the unexpired term of Carter H. Harrison, Sr. Since the beginning of the war he has been secretary of the Illinois Council of Defense. Mr. Hopkins was a bachelor. Six sisters, three of whom are married, survive him.

**WILLIAMS**  
 STEEL PLANT EQUIPMENT  
 COKE OVEN MACHINERY  
 GAS PRODUCERS  
 ORE AND COAL HANDLING MACHINERY  
 SPECIAL CRANES  
 MINING MACHINERY  
 HYDRAULIC TURBINES



## SHIPYARD CRANES

The tendency of modern shipyard practice toward the hammerhead type of crane is again demonstrated. We have just completed and erected for William Cramp & Sons the example shown above.

This crane handles 75 tons at 50 ft. radius and 10 tons at 95 ft. radius. Photograph shows crane under test load of 90 tons.

**THE WELLMAN-SEAVER-MORGAN CO.**  
 CLEVELAND, OHIO, U.S.A.



# Classified Opportunities

## MINERAL AND TIMBER LANDS WATER POWERS MISCELLANEOUS PROPERTIES

FOR GOOD VALUES in Virginia blue grass or general purpose farms, coal and timber lands, and Roanoke City and suburban property, factory sites particularly, address Ellis L. Wright, 313 South Jefferson Street, Roanoke, Va.

200 ACRES, one mile from Dillwyn, Va., valuable deposits of pyrites, copper and gold land; also farm and timber lands of every description. Write for catalogue. Emmet D. Gregory, Dillwyn, Va.

### OIL SHALE DEPOSIT

WANTED TO CORRESPOND with a person or company who is interested in a very fine deposit of oil shale running 40 per cent. crude oil. This vein is on railway and in thickly settled country. Can furnish complete report as to the amount of gas, ammonia and oil per ton. Address No. 5180, care Manufacturers Record, Baltimore, Md.

### PHOSPHATE ROCK

FOR SALE—Two million tons of blue rock phosphate in the ground near Mt. Pleasant, Tenn., running from 58 to 72 per cent. bone phosphate of lime; spur of the L. & N. R. R. runs through it; location the Government nitrate plant at Mussel Shoals, Ala., makes the property more valuable; Mussel Shoals is only 60 miles from Mt. Pleasant. Colonel W. N. Hughes, U. S. A., 2225 Church St., Nashville, Tenn.

### MANGANESE ORE LAND

700 ACRES MANGANESE ORE LANDS for sale; engineer's estimate, \$80,000 tons; railroad one mile; now mining with pick and shovel; analysis and records available. Address Doak Aydelott, Tullahoma, Tenn.

### COAL LAND AND MINES

KENTUCKY GAS & BY-PRODUCT COAL

Opening mines, Harlan & Hazard Fields, sold to consumers of Central West. Low sulphur and ash, especially suited for malleable-iron producers. Consumers can assume themselves of uniform quality and desired quantity. Agent also for virgin coals lands. Reference—any Louisville bank. Upon request will be pleased to refer to large consumers whom I have located in this territory.

J. STODDARD JOHNSTON,

PAUL JONES BUILDING,

LOUISVILLE, KY.

COAL MINE FOR SALE, with electrical equipment, and 21,000 acres of good coal land, on which is much valuable timber and two mills; near the Southern Railway, in Alabama, 66 miles westerly from Chattanooga, Tenn. Bon Air seam, 40 inches thick, of high grade for domestic use or as steam coal; good markets and reasonable freight rates covering a large territory. For sale cheap to close an estate. For full particulars address F. D. Pierce, Bridgeport, Ala.

FOR SALE—Two well equipped and going coal properties. Camp and equipment in good shape. Electric mining machines and improved methods. Investigation invited. Isthmian Coal & Trading Co., Birmingham, Alabama.

555 ACRES COAL LAND, with all kinds, steam, gas, splint, block and cannel coals in this one tract. Men who mean business and want to make 200 per cent., answer. Geo. Berlin, Catlettsburg, Ky.

### COAL AND TIMBER LAND

FOR SALE—Bargain: 90,000 acres Tennessee coal and timber land in parcels of 5000 to 10,000 acres, or together, \$3.00 to \$10.00 per acre; part on railroad, part fine virgin timber; good titles; exposures of highest grade coking coal. Owned by estates. E. H. Benest, 1921 Boatmen's Bank, St. Louis, Mo.

50,000 ACRES Tennessee coal and timber lands, located in Lincoln, Franklin and Coffee counties; must sell to settle partnership. Price \$2.50 per acre; \$15,000 cash, balance on ten equal annual payments. Would accept exchange property to the amount of one-half. T. N. Fingers, Jr., Columbia, Tenn.

COAL MINES, COAL AND TIMBERED LANDS for sale. Write me. I can get you what you want. H. C. Van Aken, 309 Post Building, Battle Creek, Mich.

### LOANS ON TIMBER LAND

SALES NEGOTIATED. Check Estimates for Loans on Timber Lands. Consulting Forester and Timber Land Factor. 25 Years' Experience All Parts of Country. F. R. MEIER,

165 Broadway, New York, N. Y.

### TIMBER

FOR SALE—Three million feet short-leaf and rosemary pine on four hundred acres land, Clarendon County, South Carolina, four miles from railroad station. Can be easily logged and shipped. If interested, communicate with owners. The Central American Cattle Co., Inc., New Orleans, La.

## RATES AND CONDITIONS

Rate 25 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 23c. per line; 300 lines, 21c. per line; 500 lines or more, 20c. per line.

### TIMBER

300,000,000 FEET VIRGIN PINE. We own and can offer for sale three hundred million feet of virgin pine timber in Palm Beach County, Florida, in solid body, at \$2.50 per M. Will divide tract. Reasonable terms.

For full particulars address owners, SOUTHERN STATES LAND & TIMBER COMPANY, West Palm Beach, Florida.

400 ACRES Texas virgin hardwood timber, near water and rail, four feet diameter, sixty feet to first limb, \$25 acre stumpage. Norman Eddington, Brighton, Illinois.

FOR SALE—Sixty million feet spruce and forty-one million feet oak, poplar, chestnut, etc., in North Carolina. Price, \$200,000. P. O. Box 8 Erie, Pa.

FOR SALE—Rosemary and short-leaf pine timber sawed to specifications up to 40 ft.; also hickory, gum and oak, up to dimensions as required. W. L. Coston, Bessemer, Ala.

FOR SALE—Two million pine, half million hard wood; five miles from depot; good road; Onslow County, N. C. Price \$5 per 1000 feet. Box No. 260, Raleigh, N. C.

FOR SALE—Fifty million feet of fine South Carolina timber, consisting of thirty-nine million feet red gum, five million oak, three million cypress, three million short-leaf pine. This timber is very large and of fine quality; easily logged at any time of the year. Price reasonable. Accessible to railroads. Will bear closest investigation. Address No. 5033, care Manufacturers Record.

### TIMBER LAND

#### INVEST IN HARDWOOD.

Big, legitimate and permanent profits. The one natural resource rapidly going out of existence, 100,000 acres virgin hardwood timber lands in Arkansas, Louisiana and Mississippi guaranteed estimate by forties. Write Owners—Arkansas Timber Land Company, Incorporated, 401-403 Southern Trust Bldg., Little Rock, Ark.

### FARM AND TIMBER LAND

FOR SALE—2,000,000 standing trees; choice variety hardwood, large and tall, mostly walnut, cedar, oak and iron wood, including 120,000 acres, in fee-simple, finest grazing and sugar-cane land, located in best province of Argentine Republic. Transportation: Rail and water accessible. Would pay a profit, if developed, over \$10,000,000 above our price for the property. Address Tyson Realty Co., Raleigh, N. C.

WE OWN LARGE TRACTS OF TIMBER LANDS, cut-over lands and colonizing lands. If interested, address H. H. Wefel, Jr., & Co., Mobile, Alabama.

### FRUIT, FARM AND TRUCK LANDS

#### ARKANSAS

FOR SALE CHEAP—Farm, stock and tools; also other farms and farm lands in large tracts. J. E. Holt, Ogamaw, Ark.

#### FLORIDA

A BEAUTIFUL WINTER HOME, a profitable orange and grapefruit grove, a general farm, cattle, hog or poultry ranch in the famous Indian River section, Vero, Florida. The wonderful climate permits not only agricultural operations all the year, but all enjoyable, life-prolonging outdoor sports. Investigate now this wonderfully charming section. Indian River Farms Company, First National Bank Building, Vero, Florida.

FOR QUICK SALE by owner on account of age, 27 1/2 acres, 1/2 mile from Seffner, including 5 acres bearing grove, 20 acres from 1 to 3 years old, mostly second-growth; good 6-inch well; all fenced in 3 separate fields. Price \$4000; \$500 off for fruit crop. Also a 5-room house in Seffner. Price \$500. Terms easy. A bargain. S. A. Lowrance, Seffner, Fla.

FLORIDA RANCH BARGAIN—34,000-acre cattle ranch in heart of Florida's best cattle country; 20-mile water frontage and flowing wells afford water all year, grazing 12 months in year; subdivided into three pastures, all fenced; stocked with 5000 head of fine improved native breed cattle; ranch-houses, barns, etc. Owner and managers in army draft and must sell at bargain price of \$150,000 on terms. Apply Arthur E. Donegan, Kissimmee, Fla.

### FLORIDA

ESTABLISHED DAIRY IN SUBURBS OF MIAMI, FLORIDA. One hundred acres excellent land, concrete dairy building worth fifty thousand dollars, hundred twenty-five head Guernsey, Jersey and Holstein cows. Is located very close to Miami, and directly on navigable canal 90 feet wide. This proposition is now earning over ten thousand dollars annually, is well established, and commands the very best reputation. Price, \$100,000, and it's worth fifty per cent. more, easy. If you are interested, will be glad to send photographs and facts that will open your eyes.

WILLIAM I. PHILLIPS,  
151 Twelfth Street,  
Miami, Fla.

Reference Bank of Bay Biscayne,  
Miami Chamber of Commerce.

TO CLOSE AN ESTATE QUICK will sell 29,000 acres solid-body cypress everglade land, five miles from Palm Beach, \$7 per acre. Half cash; balance, terms. Titles O. K. W. L. Van Duzor, Jacksonville, Fla.

FOR SALE—FLORIDA.—One-quarter section well-drained black muck land in Palm Beach County, adaptable to sugar cane, general farming and stock raising. Green pasture every month of the year. This place is located in the most progressive county in Florida, within easy reach of Palm Beach and the East Coast resorts, and will make a fine, profitable farm for either business man or farmer. Price \$35 per acre. For details write J. A. Rostan, Lake Worth, Florida.

A BEAUTIFUL ORGANIC GROVE on St. Johns River, two and one-half miles of Palatka. Fine house, nine rooms; 24 acres land; flowing artesian water; good packing-house, wharf and boathouse; price, \$4500; \$1500 cash, and balance on terms. For full particulars and photographs write Fred T. Merrill, Palatka, Fla.

FOR SALE—Improved 31-acre farm with orange grove. Price reasonable. I. Mizelle, Orange Lake, Fla.

THE LAND OF SUNSHINE. Get away from buying coal. Northern blizzards and worries of war. It's as cheap to live at Hotel Palms, West Palm Beach, Florida, as at home. Write manager for instructive booklets and rates.

FOR SALE—Ten acres grapefruit and oranges fully set out and bearing at Caloosa, Fla. Will sell cheap, \$3500, for good reasons. C. A. Currier, Lexington, Mass.

6500 ACRES IN FLORIDA.—Wholesale price; will not retail. Located on the East Coast, in Volusia County. Price \$6 per acre. 8 miles west of New Smyrna, Fla., on the Orange City branch of the Florida East Coast R. R. 2250 acres are "prairie land." Has an elevation of 22 1/2 to 41 feet above tidewater; top soil is a black sandy loam, underlaid with clay. Would make an ideal stock range. Title good. Owned in fee-simple, without incumbrance. Other information will be furnished upon request by E. C. Howe, 749 Hartford Bldg., Chicago, Ill.

#### GEORGIA

1400 ACRES good farm land, 45 miles of Atlanta, 2 1/2 miles of good town, on splendid highway. 1000 acres in cultivation; well improved ten room and six-room residences and 18 good tenant-houses; plenty barns, wagon sheds, cribs, etc. Timber sufficient to keep up all buildings. Good pastures, watered by creek and numerous branches. Land lies well; can be handled with tractor. \$40 an acre; 1/2 cash, reasonable terms on balance. McLendon Bros., Atlanta, Ga.

FOR LEASE OR SALE—2500-acre stock farm in healthy middle Georgia, partly stocked with Hereford cows and Duroc hogs; all fenced with hog wire; 1000 acres cultivated by croppers; 20 miles and farm implements; never-failing water in every field. A well-established farm, but requires money to keep it going. Lease \$2500 per year. Sell everything for \$50,000. Full particulars on request. J. C. Burruss, owner, Empire Bldg., Atlanta, Ga.

#### LOUISIANA

FOR SALE—Half section fine farm land, all in cultivation. Deep-well 60 H. P. oil engine. Good improvements, fences, etc. Three miles from railway town. High school, churches, bank, telephone. Rice, cotton, corn, potatoes, melons, cattle and sheep can be raised at a good profit. E. S. Hart, Elton, La.

### MARYLAND

MONEY-MAKING FARM FOR SALE—acres; good house; nearly new barn, outbuildings; fruit; 15 acres in cultivation, about 3 acres in strawberries; black land grows good crops. Only 2 miles from school, store and church near. Includes 1 horse, 1 cow, 50 chickens. Immediate possession, \$1750; easy terms. E. B. Figs, 211 N. Division Street, Salisbury, Md.

### MISSISSIPPI

FOR SALE—1440 acres, of which 400 are in rich valley of delta formation; practically all in cultivation; two commodious dwellings, two large barns, 30 tenant-houses, four bored wells; four miles to railroad on rock road; one mile to county agricultural high school; labor ample and cheap; produces one half cotton and 2 bushels of corn to the acre, and other crops in proportion; fine for alfalfa; \$50 per acre cash or terms.

At present prices good farmer and manager should make with a good crop and price in one year.

Write the owners, Box 245, Aberdeen, Miss.

### OKLAHOMA

320 ACRES, half cultivated, \$16,00; half cash, balance time to suit purchaser; would take limited amount Liberty Bonds. Box 13, Headrick, Jackson Co., Okla., owner.

### SOUTH CAROLINA

FOR RENT OR SALE—One of the fine tobacco and cotton farms in South Carolina. Parties in neighborhood making as much as \$800 worth tobacco per acre. Lots of cypress and green timber, also lot pine timber on place. Right at railroad station. Fine opportunity to rent or buy. Address M. K. Lee, Monroe, N. C.

FOR SALE—A fine farm of 39 acres, fifty dollars per acre, worth \$100. Well improved, well watered, partly wired. Good crops. Good crops all kinds this year. Good community, schools, churches. On Dixie Highway, near home of Senator Tillman. Not for sale after another crop is plowed; pitch me, E. J. Norris, Real Estate Agent, Edgefield, S. C.

### TENNESSEE

FOR SALE—A fine tract of land of 56 acres, in Hardin County, Tennessee, three and one-half miles of Coffee Landing on Tennessee River; 350 acres in Mud Creek Drainage District, said district formed 1911, and canal cut; 234 acres of hill land, 2 farm-houses, 1 cabin, 1 set of barns; land suitable for cotton, corn, wheat, hay and livestock. Will sell for cash, exchange for Liberty Bonds or 25 per cent. cash; remainder, 3 to 10 years, to suit purchaser, with 6 per cent. interest. Price upon application. J. F. O'Neal, Henderson, Tenn.

### TEXAS

240 ACRES WELL IMPROVED FARM, 1/2 mile good school and church; 370 acres modern improvements. Other smaller buildings. Good water and no crop failures. Delightful climate. Correspondence solicited. T. E. Campbell, Canton, Tex.

### VIRGINIA

VIRGINIA FARM FOR SALE. 513-acre farm, between Newport News and Yorktown, Va., two miles from C. & O. Station, fronting one mile on good road, half cleared and broken in young timber, well fenced with woven wire and cedar posts, naturally drained large fertile field; ideal for stock or truck farm, and lies well for subdividing.

Price, including horses, mules, cows, hogs, sheep, machinery, tools, etc., LESS THAN \$50 PER ACRE. HUNDLEY & APPLEWHITE, INC., NEWPORT NEWS, VA.

FOR SALE—OLD SOUTHERN HOME in the most beautiful, exclusive and delightful section of Piedmont Virginia, Albemarle County, near historic Monticello and Keswick Country Club. Farm contains hundred acres. Large house, in good condition. Handsome grounds, with fine old trees. Two miles from R. R. Can be bought at a low price direct from owner, J. H. Boyden, F. St., Washington, D. C.

FOR SALE, VIRGINIA—Colonial home, famous James River Valley; highest state cultivation; soil, location, labor, social conditions unsurpassed; equipped to the minute; 760 acres; \$400,000; terms; good bonds taken part payment. Owner, Box 27, Richmond, Va.

## BUSINESS OPPORTUNITIES

FARMING OPPORTUNITIES AND INDUSTRIAL SITES along the Winston-Salem Southbound Rwy. Co. Here climate, soil, transportation, good roads, fine schools and excellent markets contribute to the success of farming, and the large and prosperous industrial centers along our lines offer splendid locations for industries of various kinds. Address S. P. Collier, Jr., Winston-Salem, N. C.

FOR SALE—About 50,000 green cardboard folding cartons. Each carton holds one dozen 1/2-oz. extracts, some little larger. Will take \$3.00 per thousand for sale. Original cost was \$18.75 per thousand. We have no use for them. Address Florida Vinegar & Extract Co., 2805 Main Street, Jacksonville, Fla.

# Classified Opportunities

## BUSINESS OPPORTUNITIES

ONLY 5% CENTS PER SQ. FT. Switching property—must be sacrificed: 800 sq. ft.; big bargain. This property adjoins one of the suburbs of Kansas City, Missouri. Low rent for employees; switching facilities for several cars at a time; labor plentiful. This property should be worth 50¢ per sq. ft. Waltner & Waltner, Attorneys, 24 Ridge Arcade, Kansas City, Missouri.

BIG SUGAR proposition. 80,000 acres sugar cane or sugar beet land. Can sell one-third goes to Florida people. \$7.50 per acre. Cane never freezes. No trade. Sadler, Fort Myers, Fla.

WE CAN SELL YOUR BUSINESS for cash, no matter where located; no publicity. Describe fully in first letter. All correspondence confidential. Herbert, Webster Bldg., Chicago.

FOR SALE—General merchandise store in thriving town of 3000, doing \$5000 business per month. Inventory August 1, \$12,000. Reason for selling, manager will be drafted. For particulars address Box 469, Norton, Va.

WANTED—Capital to complete oil well, 100 feet deep, best of indications; location of well passed on by competent geologists. Have under lease 30,000 acres of land with good indications on all of it. Own drilling rig complete and 200 acres in fee where well is located. Will make any reasonable contract with parties furnishing capital to finish test well. Address R. O. Pearson, Colorado, Texas.

HOTEL—Great opportunity in Newport News. I am drafted and I have to get ready to go, so I will sell my fortune at cost price for quick deal. Hotel, five stories, brick building, 60 excellent rooms with all conveniences, large dining-room, poolroom, large lobby, elevator, steam heat, etc. \$16,000 required in advance. If you mean business, write owner, Address N. P., Postoffice Box 615, Newport News, Va.

CONTROLLING INTEREST FOR SALE—An opportunity for a practical ice and cold-storage man to acquire the controlling interest in a 40-ton ice plant and 100-carload public storage. Will bear closest investigation. Address Box 482, El Dorado, Kansas.

MONEY TO LOAN on large timber tracts, from \$50,000 to \$100,000, 6 per cent. interest; also large issue of bonds and stocks of railroads, gas, timber, manufacturers, etc., financed. Describe fully what you want. Joe A. Martin, Aberdeen, S. D.

WANTED—To make loan on factory located at New Wilson, Okla. For full particulars write the Sun Light Carbon Co., Wilson, Okla. Preferred risk loan \$12,000. Assets \$70,000. First-mortgage loan at 8 per cent for 12 months.

SALESMEN VISITING the larger industrial plants and public institutions off the beaten trail can materially increase their income by representing manufacturer of an essential specialty on commission. Sales unit about \$75—commission 20%; no samples, and very little time necessary. Hargrave Bros., Inc., 1765 Beretton Ave., Chicago.

## GOVERNMENT CONTRACTS

REPRESENTATION before Congress, all Courts, Government Boards and Departments. We specialize in daily reporting Government requirements. Expert attention to Government bidders and contractors. U. S. Legal Corporation, Washington, D. C.

WILLIAM J. DOW announces that he is now located at 201-227 Colorado Building, Washington, D. C., where he will give special attention to matters relating to Government contracts, Licenses, Income and war taxes, war boards, admiralty and Court of Claims.

## INCORPORATING COMPANIES

DELAWARE CHARTERS. Stock Without Par Value. Directors Need Not Be Stockholders. Other important amendments (March 20, 1917) Write for new DIGEST (4th ed.). CORPORATION COMPANY OF DELAWARE Equitable Building, Wilmington, Delaware.

## TRADE ACCEPTANCES

"Trade Acceptance" forms supplied. Request sample. Commercial Form Co., Passaic, N. J.

## PATENT ATTORNEYS

PATENT YOUR IDEAS—\$900 offered for certain inventions; book, "How to Obtain a Patent," and "What to Invent," sent free upon request; send rough sketch for free report as to patentability. We advertise your patent for sale at our expense. Chandlee & Chandlee, Patent Attorneys, 978 F St., Washington, D. C.

## PATENT ATTORNEYS

PATENTS, TRADE-MARKS AND COPY-RIGHTS.—Write for list of patent buyers and inventors wanted. \$1,000,000 in prizes offered for inventions. Send sketch for free opinion as to patentability. Our four books sent free. We assist inventors to sell their inventions. Victor J. Evans Co., Patent Attorneys, 712 Ninth St., Washington, D. C.

PATENTS AND TRADEMARKS Procured by a former Examining OFFICIAL of the U. S. Patent Office. NORMAN T. WHITAKER, Attorney-at-Law, Mechanical Engineer, 180 Whitaker Bldg., Washington, D. C. Inquiries Invited.

## SHIPYARD SITE

SHIPYARD SITES.—10 to 50 acres with water front. If interested you are invited to inspect this property. Jos. A. Wallace, 211 Birkley Ave., Norfolk, Va.

## FACTORY SITES

BALTIMORE FACTORY AND TERMINAL SITES.—Statement of Asa G. Candler, President The Coca-Cola Co.: "Investigation convinced us that Baltimore is not only the commercial metropolis for Southern trade, but that it affords shipping opportunities both by water and rail for domestic and foreign traffic superior to any of the great cities in any section of the United States." Located in Baltimore and derive these advantages. We can provide accommodations to meet your requirements.

"OUR MOTTO": FACTORY AND TERMINAL SITES IN BALTIMORE. Wm. B. Martien & Co., Ninth Floor, Lexington St. Bldg., Balto., Md.

## MOTOR TRUCK FACTORY

IDEAL location for motor truck or automobile factory or assembling plant, near tide-water, surrounded by abundance of raw materials. Would take interest ourselves and like to correspond with manufacturers seeking location or with man of experience, ability and means who would organize and manage a company. Talltimber Lumber Company, Talltimber, Sabine County, Texas.

SALES MANAGER—For years with large manufacturing corporation, resourceful efficient organizer and business builder, also experienced in credits and plant management, desires new connection. Salary or commission. References AL Address No. 5186, care Manufacturers Record, Baltimore.

MANAGER AGRICULTURE, FRUIT AND TRUCKING.—The writer has had many years' practical experience. No small proposition considered. Southern States preferred. Address No. 5181, care Manufacturers Record, Balto., Md.

EXCELLENT FACTORY SITE, 100 feet x 300 feet.

Adjoining our plant, with railroad and brick highway facilities. 1000 H. P. electric power, also steam, refrigeration and water supply available. 1½ miles from center of city of 10,000 population.

Inquiries Solicited.

ORLANDO WATER & LIGHT COMPANY, Orlando, Fla.

## INDUSTRIAL PLANTS FOR SALE

### ICE AND COLD STORAGE PLANT

FOR SALE—Properties of the Independent Ice Co. at Wilmington, N. C. Ice plant located corner 7th and Brunswick Streets. One sixty (60) ton York machine plant equipped in every particular. Cold-storage plant corner 2nd and Campbell Streets, 200,000 cubic feet capacity; built by Boyle-Robertson Construction Co., Washington, D. C.; also a seventy (70) ton rebuilt Columbian absorption plant at Chadburn, N. C. built for the purpose of icing Armour Car Line refrigerated cars. These are good opportunities for experienced ice and cold-storage men. Our reason for selling is that all parties interested are completely absorbed with other interest, whereby they can give no time to this business. The Independent Ice Co., Wilmington, N. C.

### WOODWORKING PLANTS

LARGE WOODWORKING FACTORY, 3-story brick building, equipped with American machines throughout, all new; dry kilns, fine power plant, large storage yard, good sidings, connects four railroads; plenty empty cars, located on river, and can ship any point on Ohio or Mississippi Rivers; rich timber area to supply plant for century to come; largest axe plant, glass plants, armor plant, powder plant in world surrounds this property; also steel and chemicals plants. Wonderful opportunity for right party. Will sell on easy terms. Owner now in Government service. Wire or write P. P. Breece, Box 344, Charleston, W. Va.

## INDUSTRIAL PLANTS FOR SALE

### FOUNDRY, MACHINE SHOP AND WOODWORKING PLANT

EQUIPPED Foundry and Machine Shop, Central Location, Abundant Help, Penna. Steel, Frame Buildings, Large Reservoir, Early Possession. Level Ground Suitable for Growing Concern.

### ALSO

Large Fully Equipped Woodworking Plant, Modern Machinery, Dry Kilns, Railroad Sidings, etc. CROSS & BROWN COMPANY, 18 E. 41st Street, New York City.

### BLAST FURNACE

FOR SALE OR LEASE—Small charcoal blast furnace. Unlimited quantity of low-phosphorus brown ore on the property. Plenty of good wood that can be had at reasonable prices. Furnace can be started in 30 days. Address J. G. Thomson, 140 Coffee St., Talladega, Ala.

## SITUATIONS WANTED

OFFICE MANAGER with executive training, familiar with cost and financial accounting, purchasing and credits; now in eleventh year secretary-treasurer of machinery manufacturing corporation in the South; no room for further promotion in present corporation, so desires connection with office end of manufacturing concern; college education; age 41; good health; married. Salary \$6000 minimum. Confidential. Address No. 5170, care Manufacturers Record, Balto., Md.

WANTED—A position at \$5000 a year or better as manager or assistant manager of a business by a man 55 years old who has managed boats and lumber and timber business most of his life; correct habits; references beyond civil. Address No. 5184, care Manufacturers Record, Balto., Md.

AMERICAN, now holding executive position, with thorough practical knowledge of Latin America and European markets, knowing by long commercial trips those countries, and Spanish, French and Italian languages, wishes responsible position with concern desiring the services of an expert exporter. Address No. 5189, care Manufacturers Record, Baltimore, Md.

SALES MANAGER—For years with large manufacturing corporation, resourceful efficient organizer and business builder, also experienced in credits and plant management, desires new connection. Salary or commission. References AL Address No. 5186, care Manufacturers Record, Baltimore.

MANAGER AGRICULTURE, FRUIT AND TRUCKING.—The writer has had many years' practical experience. No small proposition considered. Southern States preferred. Address No. 5181, care Manufacturers Record, Balto., Md.

## MEN WANTED

IF ACTUALLY QUALIFIED for salary between \$2500 and \$25,000, communicate with undersigned, who will negotiate strictly confidential preliminaries for such positions: executive, administrative, technical, professional; all lines. Not an employment agency. Undersigned acts in direct confidential capacity, not jeopardizing present connections. Established 1910. Send name and address only for explanatory details. R. W. Bixby, 264-66 Niagara Street, Buffalo, New York.

WANTED AT ONCE SUPERINTENDENTS, FOREMEN AND EXPERIENCED MEN for street paving, roads, water-works and other construction. State what branch more familiar with.

ROBERT G. LASSITER & CO., Arcade Building, Citizens' Bank Bldg., Norfolk, Va. Raleigh, N. C. Home Office: Oxford, N. C.

WANTED—A thoroughly competent, practical superintendent and estimator, to take charge of a marble finishing plant. Climatic conditions unexcelled; location in one of the middle States. Salary satisfactory to right party. Give references, experience, married or single. Address, No. 5187, care Manufacturers Record, Baltimore, Md.

ARMATURE WINDERS WANTED—12 first-class men on general repair work, A. C. and D. C. First-class wages, light shop, congenial surroundings; no labor trouble. Address No. 5188, care Manufacturers Record.

CHECKERS AND DRAFTSMEN.—Tennessee Coal, Iron & Railroad Company requires men experienced in steel plant work. Apply, giving education, experience, salary and reference, to R. E. Brakeman, Chief Engineer, Fairfield Works, Birmingham, Alabama.

WANTED—QUARRY SUPERINTENDENT, experienced handling large stone quarry. Also experienced foremen in water construction and general construction. Also clerks, bookkeepers and stenographers. Raleigh Granite Co., Norfolk, Va.; Raleigh, N. C.

LIVE MEN wanted to handle side line in connection with boiler-room specialties. Good commissions, exclusive territory, liberal contract. If you are a hustler and a slicker, write us. The Boiler-Kote Company, 343 S. Dearborn Street, Chicago, Illinois.

## MACHINERY AND SUPPLIES

FOR SALE—A quantity of heavy cold-rolled steel shafting, pillow blocks, roller-bearing bangers, wood pulleys, rope drive, etc.; also one 15-in. matcher, one Mitts & Merrill 3-M hog, fans, etc. List on application. Graves, Manhart, George & Co., Buffalo, N. Y.

FOR SALE—Triumph ice tank, containing 300 cans, 20 wide and 19 long. Equipped with shell-type brine cooler 33" diameter and 14 long. Tank, cooler, top, cans are all in first-class condition, having been used only five years. Produced average 27.5 tons ice per day during July and August. Can be loaded on 30 days' notice. Write Siloam Springs Ice Co., Siloam Springs, Ark.

FIFTY PFAUDLER ENAMEL TANKS, capacity 1650 gallons to 18,000 gallons. Also wooden vats, beer filters, copper kettles, beer coolers and refrigerating machinery.

CHAS. S. JACOBOWITZ, Brewery Dismantler, Buffalo, N. Y.

ENGINE, BOILER FOR SALE—One 25 H. P. engine and 30 H. P. boiler; pulleys and shafting in good repair. S. F. Woodall, Woodland, Ga.

FOR SALE—Power plants and miscellaneous electrical equipment. M. Cloud Public Service Co., St. Cloud, Minn.

FOR SALE—Seven 100 H. P. and one 150 H. P. horizontal tubular boilers. Two Worthington compound steam pumps, 14x20x12x15. Two Cameron steam pumps, 12x22x10½x20. Several boiler feed pumps. New and second-hand 8 and 10-inch centrifugal pumps, for sand or water. One Rand Imperial type No. 25 air compressor, Duplex steam end and compound air end. M. A. Waldo, Receiver, Bartow, Fla.

FOR SALE—CIRCULAR SAW MILL. Complete with steam feed, edger, trimmer, cut-off saw, live rolls, sawdust and wood conveyor, live sorting table, roll-off wagon, Berlin A-1 planer, 1 30 H. P. boiler, 1 100 H. P. boiler, 2 engines. Mill is a complete unit, now sawing 20 M. ft. small logs daily. Will be cut out within a month. The Fox Park Timber Co., Laramie, Wyo.

FOR SALE—Four-ton ice-making machinery, "York" compressor, coils, tank, cans and 25 H. P. De La Vergne oil engine. Write Apalachicola Packing Co., Apalachicola, Fla.

FOR SALE—Horizontal storage tanks, capacity 9000 to 21,000 gallons, our specialty. Prompt shipment, in some cases immediate. Sharpaville Boiler Works Co., Sharpaville, Pa.

GASOLINE TRACTOR AND DUMP WAGONS FOR SALE—60 H. P. Pioneer 4-cylinder wagon with dump body, capacity 4 yards, in good shape; 4 gallon wagon with dump body, capacity 4 yards; wagons good, bodies need overhauling. An ideal outfit for mining or lumber camp, road builders or farmers. Entire outfit for \$1650. F. L. Wilson, 601 Main Street, Lynchburg, Va.

BOILERS, tanks, engines, machinery, anything of steel construction is high priced, necessarily so; send your requirements and let us furnish used articles like new; if not on hand we will locate same for you; also write us if you have anything of the above nature to sell; let us market it for you. Service Sales Co., Room 604, American Bank Bldg., Kansas City, Mo.

Wheel and Circular Sawmill Complete for Operating. Capacity 20,000 Feet. Write for blueprints and machinery list. 35 H. P. Center Crank Wheeland Engine, 25 H. P. Byers Log Loader with car, 13-ton, upright type, Climax Locomotive, All above in first-class condition.

H. P. Wyman Lumber Co., Bristol, Va.

FOR SALE—One 2½-inch two-stage centrifugal pump; one 3-inch two-stage centrifugal pump; one 3-inch Myers bulldozer, all guaranteed to be in good working condition. Also, about 2000 feet of 6 and 6-inch black wrought-iron pipe in excellent condition. Cohan Bros., Orlando, Fla.

FOR SALE—Two Fairbanks Morse duplex pumps, sizes 8-12, 10-12. Good condition. Wylie Bros., 328 West Grand, Oklahoma City.

FOR SALE—One practically new lime-burning outfit, capacity ten tons daily; kiln, cooler, gas producer, motors, blower complete. Joseph Bancroft & Sons Company, Wilmington, Delaware.

FOR SALE—One ten horse power Otto gas engine; also one complete electric-plating plant. M. E. C. Co., Fredericksburg, Va.

FOR SALE—Complete equipment of machine shop, consisting of lathes, gear cutter, etc. For particulars address W. E. Rosenbaum, 909 Century Bldg., St. Louis, Mo.

## MACHINERY and SUPPLIES WANTED

WANTED—Mills, plants, electric machinery, drykilns. We buy for cash f. o. b. shipping points. Our prices for old mills are the highest. Let us prove it. Meltreger Company, 1403 So. Blue Island Ave., Chicago, Ill.

# PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

More Southern Proposal Advertising Is Printed In The Manufacturers Record Than In Any Other Paper

Bids close November 7, 1918.

**PROPOSALS FOR COPPER, WIRE, Nails, Cocks, Punches, Chucks, Dies, Drills, Holes, Saws, Bolts, Hinges, Spades, Scales, Thermometers, Saddle Covers, Ribbed wire and Window Glass, Rubber Matting, Flags, Timber and Lumber.** Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 o'clock A. M. November 7, 1918, at which time they will be opened in public, for furnishing the above-mentioned articles. Blanks and information relating to this circular (1236) may be obtained from this office or the offices of the assistant purchasing agents, 24 State Street, New York City; 606 Common Street, New Orleans, La., and Fort Mason, San Francisco, Cal.; also from the United States Engineer offices in the principal cities throughout the United States. A. L. FLINT, General Purchasing Officer.

Bids close November 9, 1918.

**PROPOSALS FOR EQUIPMENT FOR MEAT CANNING FACTORY.** Sealed proposals will be received at the office of the General Purchasing Officer, The Panama Canal, Washington, D. C., until 10:30 o'clock A. M. November 9, 1918, at which time they will be opened in public, for furnishing the above-mentioned equipment. Blanks and information relating to this circular (1237) may be obtained from this office or the offices of the assistant purchasing agents, 24 State Street, New York City; 606 Common Street, New Orleans, La., and Fort Mason, San Francisco, Cal.; also from the United States Engineer Offices in the principal cities throughout the United States. A. L. FLINT, General Purchasing Officer.

Bids close November 6, 1918.

**\$15,000 6% Bonds**

Notice is hereby given that the Board of Supervisors of Clay County, Mississippi, will sell to the highest and best bidder at the Court House in West Point on the 6th day of November, 1918, \$15,000 District No. 2 roads bonds, bearing 6 per cent. interest, payable annually, \$1000 of said bonds to mature each year. Purchaser to furnish blank bonds and to pay their own attorney fee and accrued interest to date of delivery. A certified check for \$500 must accompany each bid. The right to reject any or all bids is reserved.

L. J. HOWARD,  
Clerk.

Bids close November 18, 1918.

**\$75,000 5% Bonds**

ROAD DISTRICT NO. 14 OF RAPIDES PARISH, LA.

Notice is hereby given that the Police Jury of the Parish of Rapides, State of Louisiana, offer for sale Seventy-five Thousand (\$75,000) Dollars of five (5%) per cent, bonds, to be issued by Road District Number Fourteen of Rapides Parish, Louisiana, said sale to be made on the 18th day of November, 1918, in the Police Jury room at the courthouse in the City of Alexandria, Louisiana.

Sealed bids will be received by the said Police Jury up to 12 noon November 18, 1918, that being the date and order fixed for the sale of such bonds—each bid to be accompanied by a certified check for at least one (1%) per cent. of the face value of the said bonds. Said bids should be addressed to T. C. Wheadon, President of the Police Jury of Rapides Parish, Louisiana.

The award of said bonds will be at a price not less than par, and the Police Jury of Rapides Parish, Louisiana, reserves the right to reject any and all bids.

T. C. WHEADON,  
President of the Police Jury of Rapides Parish, Louisiana.

Bids close November 5, 1918.

**Road Construction**

Sealed bids will be received by the Highway Commission of District 2, Montgomery County, Mississippi, at the Courthouse, Winona, until 12 o'clock noon Tuesday, November 5, 1918, and at that time publicly opened, for Federal Aid Project No. 19, the same being a part of State Trunk Road No. —, between Memphis and Jackson.

The length of road to be improved or constructed is 9.26 miles, and the principal items of work are approximately as follows: Gravel in place, 16,308 cu. yds.

Plans and specifications are on file in the office of the State Highway Department at Jackson and in the office of the Chancery Clerk in the Courthouse, Winona, Miss. Any additional information may be secured from the State Highway Engineer, Jackson, Miss. The right to reject any or all bids is reserved.

Cash or certified check for Five Hundred Dollars made payable to Highway Commission of District 2, Montgomery County, must accompany each bid as evidence of good

faith and as a guarantee that if awarded contract the bidder will execute the contract and give bond as required.

XAVIER A. KRAMER,  
State Highway Engineer.

Bids close November 9, 1918.

**Ditch Construction**

Morganfield, Ky.

Sealed bids will be received by the Board of Drainage Commissioners of Union County, Ky., up until 1 o'clock P. M. Saturday, November 9, 1918, for the construction of the Geo. Smith Public Ditch, at the office of the Drainage Board, Morganfield, Ky.

Work consists of 4½ miles of open ditch, approximately 400,000 cu. yds. earth excavation.

Plans and specifications may be seen at the County Clerk's office or at the office of Norman R. Orcutt, Chief Engineer, Morganfield, Ky.

All bids must be accompanied by a certified check for \$1500, and the right is reserved to reject any and all bids. The bidder to whom the contract is let will be required to give bond for 75 per cent. of the total amount of his bid.

Bidding blank furnished on request. All bids to be addressed to Norman R. Orcutt, Secretary Drainage Commission, Morganfield, Ky. Work to be completed within one year from date of signing contract.

NORMAN R. ORCUTT,  
Chief Engineer and Secretary,  
Morganfield, Ky.

Bids close November 18, 1918.

**Improvement and Enlargement of Water Works Plant**

Wilmington, N. C.

Sealed proposals will be received by the Mayor and Council of the City of Wilmington, N. C., until noon November the 18th, 1918, and then publicly opened, for furnishing all apparatus, materials and labor and equipment necessary to improve and enlarge the water-works pumping station at Hilton Park. Approximate requirements are as follows:

I. (a) Approximately 100 feet of light-weight C. I. flanged 14 inches diameter suction pipe, with strainer, foot valve and gate valve, furnished and laid, complete.

One hundred feet of discharge pipe, with

elbows, check valves and gate valves furnished and laid, complete.

(b) One five million-gallon centrifugal pump for lifting raw water from the Cape Fear River and discharging it into the sedimentation basin; total head, including elevation, fifty feet.

One steam-driven turbine engine or a double vertical double-acting engine to operate raw-water pump, f. o. b. cars Wilmington, N. C.

(c) Unloading from cars, hauling and erecting same.

Building concrete foundation for pump and housing for same.

II. One reinforced concrete reservoir, with brick baffle walls, with sump pit, outlet valve and drain pipe in place as per plans and specifications.

Approximately 7000 cu. yds. of earth excavation and disposal of same.

III. Four filter units, similar in type and size as the present filters, each having half million gallon daily capacity.

IV. Two new storerooms, built as a second story on the present pumping station, size approximately 20x30', built in like conformity to the present building, including doors, windows, ventilators, stairways, etc., complete, also removing present 8" wall, substituting iron columns and cross beams for supporting upper story.

Bidders will furnish and submit with their proposals, plans and specifications covering types of pump and filters offered.

Proposals must be made out upon blanks furnished by the City of Wilmington, sealed and marked: "Proposals for Improvement of Water-works Plant," and addressed to Thomas D. Meares, City Clerk and Treasurer.

Each proposal must be accompanied by a certified check, made payable to the City Clerk and Treasurer for 10 per cent. of the amount of the proposed bid.

Proposal blanks and information will be furnished without charge upon application to J. Newton Johnston, City Engineer.

Bidders are requested to visit the site of the work, and review the plans and specifications on file in the Engineer's office.

Bids will be received as a whole or in part on any of the items set forth on the proposal sheet.

The Mayor and Council reserve the right to reject any and all bids or to accept any item of any bid that may be for the best interest of the city so to do.

Dated October 21, 1918.

THOS. D. MEARES,  
City Clerk and Treasurer.J. N. JOHNSTON,  
City Engineer.

# DERRICKS FOR ALL

## Industrial, Engineering and Construction Works



SOUTHERN TRANSPORTATION CO., BARGE BUILDING YARD, NORFOLK, VA.

**ALLEN ENGINEERING CO. Pennsylvania Building PHILADELPHIA, PA.**  
DERRICKS, ENGINES, CABLEWAYS

te valves for  
on centrifugal  
from the gas  
into the oil  
including  
engine or  
engine to op-  
cars Wilting  
hauling and  
on for pump  
reservoir, with  
p pit, outlet  
as per plan  
of earth ex-  
in type and  
h having half  
uilt as a re-  
camping station,  
t in like com-  
ing, including  
airways, etc.  
8" wall, gal-  
beam size for  
uit with their  
ions covering  
ed.  
upon blank  
ngton, sealed  
rovement of  
addressed to  
x and Treas-  
panned by a  
to the City  
cent. of the  
ation will be  
application  
Engineer.  
t the site of  
s and specific  
s office  
whole or in  
forth on the  
ve the right  
to accept any  
for the best

EARIES,  
Treasurer.



## Will You Take a Little Trouble to Help These Boys Have Comfort?

The Y. M. C. A. needs *men* for war service. The nation has given generously in *money* for this work but *money* won't do everything—certainly not in war.

The Y. M. C. A. is in special need of men to serve as *Truck Drivers and Mechanics*.

### 75 Drivers and 25 Mechanics every month.

We are making this appeal to the business men—the employers of the country to get those men for us.

The Y. M. C. A. service behind and on the battle lines is a highly organized business. And as in every other big business, transportation is one of its greatest needs.

The canteen stocks have to be kept moving or the boys go without the comforts they crave so much—tobacco—chocolate—pastry—little army "luxuries."

After a long march or a hard fight or a trick in the trenches the boys flock to the "Y" canteen. And it sure is tough if the "Y" man has to say "Nothing doing boys, the truck didn't get in today." Suppose *your* boy were there!

The Y. M. C. A. does not want men who are eligible for the army. But there are men in this country (lots of them) who are over 37 years old and are not in Class 1 of the draft and who know how to drive a truck or keep an engine in shape. We want *them*. We want 100 a month.

Maybe you have a man with that training working for you or you know such a man somewhere. Maybe he has not realized how much he can do to help the

boys. A little talk from you would start him our way.

*Will you act as a recruiting officer to get that man for us?*

There is no *profit* in this work for any man who serves but he will get his living and his family, if he has one, will be taken care of and all his life he will rejoice over the service he has rendered. Talk with men you know who might do this work. Explain to them the *need* for their service. Get them interested and thinking.

In order that you may talk to such men on the best basis fill in and mail the coupon and we will furnish full information.

### Help us get these Men

Ed M. Willis,  
Y. M. C. A., 347 Madison Ave., New York.

It may be possible for me to get recruits for Y. M. C. A. truck service in France. Please send me full information regarding that service.

Signature .....

Street and No .....

Town and State .....

# Machinery, Equipment and Supplies WANTED

## WANTED—IMMEDIATELY Compound Engine Generators

*One Each*

100 to 150 KW  
300 to 375 KW  
220 or 440 Volt  
3 Phase, 60 Cycle

Describe fully and name cash price.  
Will also consider turbo units.

Address C. E. G.

Care of MANUFACTURERS RECORD

## WANTED

PIPE - - - 3" to 10"  
RAILS - - 12 lbs. to 35 lbs.  
FLUES - - - 3" to 4"  
TANKS - - any size

If you wish to buy or sell,  
communicate with us.

**Keystone Pipe & Supply Co.**  
BUTLER, PA.

## WANTED

Car Wheels, 8" to 12".  
Brass Rods and Strip Brass and Copper.  
Large Angle Iron.  
Channel Iron, 3/4" x 2".  
Cold Rolled Shafting, 1 3/16" to 5 7/16".  
Drop Hangers, about 12" drop for 2 3/16"  
shafting.  
Bearings, 3 1/8" to 5 7/16".  
Plates, 3/8" to 1" thick.  
Tin Cans, Tools and Machinery.  
Milling Machine or Gear Cutter.  
Lathe, about 18" x 10" Q. C. G.  
Belt Hammer.

Guyan Machine Shops

Legan, W. Va.

## CORRUGATED SHEET IRON

## WANTED ALSO

## I-BEAMS

NATHAN KLEIN & CO.

WALKER AND CENTRE STS. N. Y. CITY

## PUMP and PIPE WANTED

One Dean Triple Pump, 5" intake, 4" discharge, second-hand, in first-class condition; also 3000' 4" Standard Second-Hand Pipe, with threads and couplings.

B. CASSELL & CO., Chattanooga, Tenn.

## WANTED

## Good Back Turning Lathe

suitable for turning Pewter Handles. Describe fully and price. Address

A-18 care of Manufacturers Record  
BALTIMORE, MD.

## WANTED

1000 tons of 60-lb. Relaying Rails, for Southern delivery. Prompt shipment essential.

The Isaac Joseph Iron Co.  
525 Reading Road Cincinnati, O.

## WANTED ELECTRIC MOTORS

### SECOND HAND WILL PAY BIG PRICES

ALTERNATING and DIRECT CURRENT from  $\frac{1}{4}$  to 500 Horse Power.  
1-2-3 phase ALTERNATING and 220 Volt DIRECT CURRENT

## What Have You To Offer?

Send list with prices. Quick Action. If interested will mail check.

**MONARCH ELEC. MOTOR CO.**

Morris Benjamin, Prop.

212 Centre St.

NEW YORK CITY

## SADDLE TANK LOCOMOTIVE WANTED

1-42" gauge saddle tank locomotive from 16 to 20 tons wanted. Must be in good condition. Quote prices and give specifications. Address

**The J. G. Tilley Co., Inc.**

BRISTOL, VA.

## We Will Buy

All classes of Contractors

## Used Machinery Equipment Rails

Etc.

Terms draft attached  
B/L all shipments

The National Equipment Corp.  
1322 Widener Bldg., Philadelphia, Pa.

# Your Government Needs Your Spare Locomotive Cranes

Here's an opportunity to co-operate with your Government. The abnormal conditions prevailing in the steel industry make it impossible for manufacturers of locomotive cranes to supply the Government's needs.

In order to expedite various war activities the Government will pay reasonable prices for locomotive cranes in good condition.

Look over your crane equipment and if you have any 8-Wheel Locomotive Type Cranes of 15 tons capacity or higher, communicate at once with this department.

Yours for the winning of the war,

**Director General of Military Railways,**

7th and B Streets,

Washington, D. C.

## Special Advertisements of General Interest.

**FOR SALE—The Entire Business of THE THREADING MACHINE COMPANY**  
**Manufacturing the well known line of Sandusky Stocks and Dies**  
 The business includes patents, drawings, jigs and tools, good-will, and a fairly large stock of finished and semi-finished machines.  
 We are conducting this business as a profitable side line, but on account of important Government contracts are unable to continue it, and offer it for sale at a very attractive figure.  
 For further particulars address  
**SECRETARY, SANDUSKY FOUNDRY & MACHINE CO.**  
**SANDUSKY, OHIO**

**Manufacturing Plant** in Cincinnati switching limits on Southern R. R. siding, fronting on Ohio River, main building 66x206 ft., 3 stories, 13, 12 and 11-ft. ceilings, foundry building addition 50x90 ft., 1-story buildings additional, approx. 12,500 sq. ft.; suitable for most any manufacturing purposes; good labor district. **Steel Frame Buildings**, 10x245' with two each 30-ton capacity 70' x 22' span, 230-volt, D. C. electric traveling cranes. **1-STRUCTURAL STEEL BUILDING**, 185' long, 65' wide, 20' high from floor. **1-STRUCTURAL STEEL BUILDING**, 146' long, 70' wide, 29' in clear to eaves. **Cupola**, 48" and 67", Cullinan, many others. **Pressure Blowers** Connerville Blowers, Nos. 1 $\frac{1}{2}$ , 2, 3, 3 $\frac{1}{2}$ , 5 and many others. **Open Tank**, 7900 gals., capacity, 8' 2" dia. **Closed Tank**, 4000 gals., capacity, built of sections bolted together. **Locomotive Crane**, Link-Belt Electric, 220-volt, 3-phase, 60-cycle A. C., 15-ton cap., 45' boom; equal to new. **Lincoln Planers**, one 16x6x12' 4 heads, two 14'x12' 4 heads. **Large Lathe**, 64" x 30", back geared power feed, 6" raising blocks. **Smokestacks**, 30' to 54'. **Molding Machines**—Stearns & Adams squeezers, Taber rock-over Taber power squeeze and pattern drawing for flask 14" x 16". **Exhaust Blowers**, 30", 50", 60" double, many sizes, single. **Ventilating Fans**, 30", 40", disc type. **Starveyan Cupola** and Forge Blowers, volume blowers. **Wind Pipe**, 15' heavy black and galvanized. **Compressors**—Two 10x9 Ingersoll-Rand, one 6x6 vertical Curtis, one 10x8 straight line (unknown make), 4-ft. flywheel; one 8x8 Marsh, one Perry two-stage, 225 ft. cap., all belted. The following steam driven: Two 14x30x30, one 12" x 24" x 30" low pressure, one 12x12x12 and one 16x18x18 Ingersoll, one 10x8x10 Battle Creek. **Air Receivers**, high pressure, 3x6 ft., 2-48 ft., 1-2' 6" x 10 ft., 1-1' 6" x 6", 1-2' 6" x 5", 1-1' 6" x 4", 1-30" x 5", 1-30" x 6". **Core Machines**, 1—Wadsworth for round cores, 3" to 24", 1—Wadsworth without dies. **Steam Engine**, 788 horizontal, automatic, condition first-class. **Drag Line Buckets**, 4, capacity each  $1\frac{1}{2}$  yd. **Brass Melting Furnaces**, new, tilting and rotary (barrel) types. **Gas Engines**, 5-10-15-20 H. P.; gasoline engines, 2 in. P. & S. Marys oil engine, 30 H. P. **Steel Pipe**, special flanged both ends, 50 pes, 16 ft. long, 10" O. D., 4 11-16" inside diam. **Bronze Pumps** for brine or acids, with pressure pipe-passes, 1-3" and 1-1 $\frac{1}{2}$ " connections, both motor driven; good for oil pumps, pressure up to 60 lbs. **Motors**— $1\frac{1}{2}$ , 2, 3 H. P.; D. C. and A. C., 10-220 round, one and three-phase, 60-cycle. **Cranes**, hand traveling, 2-27' 9" span, 10-ton; 3-31' 3 $\frac{1}{2}$ " span, 5-ton, with trolleys and hoist; 2-24' span, 1 and 2-ton; 1-26' 3" span, 3-ton; 1-3 ton all steel Northern jib, 20' swing, 20' under jib. **Trolleys**, 2-6-ton, geared for 24" I-beams; 1 plain roller bearing for 12" I-beam; 1 plain for 6" I-beam. **Hoists**, 1 each 2, 3, 5, 8-ton chain hoists.

**THE CLIFTON-PRATT CO.** Cincinnati, O.

### GOVERNMENT REPRESENTATION

We will represent your interests with the different Government Departments in Washington and Philadelphia, keeping you in touch with the situation at all times. Our plan of operation is entirely consistent with Government requirements and we are operating successfully.

**Maple, Moore & Lockwood**  
 SUITE 219

District National Bank Building  
 WASHINGTON, D. C.

1322 Widener Building  
 PHILADELPHIA, PA.

### Batesville-Cushman MANGANESE FIELD IN ARKANSAS

This field is undergoing a rapid development at this time. Ore-bearing area is expanding with prospecting. New mines are being brought in weekly. Produces both high and low grade ores in commercial quantities. Write for free booklet.

**BATESVILLE BOARD OF TRADE**  
 BATESVILLE, ARK.

### We are dealers in CHESTNUT POLES and POSTS

We offer a few cars, 7' 30' poles at \$3.75. F. O. B. cars here. Yards on L. & N. & T. C. R. R.

**C. E. NORTHRUP & SON**  
 GALLATIN TENNESSEE

### WANTED COLD SAW

42" or 48" Newton or Lucas Make, motor drive. Give condition and best price, stating where same can be inspected.

**The American Forge & Machine Co.**  
 Canton, Ohio

**Wanted**  
**1-50-60 or 70-ton Standard gauge switching Locomotive**  
 Give complete specifications, price, make and location for inspection.

**THE H. T. LAMBERT CO.**  
 First National Bank Bldg. Huntington, W. Va.

### WANTED

1 $\frac{1}{2}$ , 5, 7 $\frac{1}{2}$  and 7 $\frac{1}{2}$ , also 2 and 2 $\frac{1}{2}$  Steel Wire Ropes, long lengths; 2000 H. P. Water Tube Boilers; lot 4 and 6" wrought Pipe; two small-belted and steam-driven Air Compressors. All to be second hand. Give full description.

Lock Box 41

Phillipsburg, N. J.

### MANUFACTURERS RECORD.

### WANTED STEEL BUILDING

Good, strong, second-hand Steel Building, about 50x180 or 200'. Suitable for foundry, 25 or 30-ton crane capacity. Address

**Crescent Foundry Co.**  
 110 Brown Race

Rochester, N. Y.

### SECOND-HAND BAGS FOR SALE

75,000 first-class second-hand bags. Offer same for 15¢ apiece f. o. b. Roanoke, Va. Write or wire. Will be sold immediately.

**Roanoke Scrap Iron & Metal Co.**  
 Box 611

Roanoke, Va.

### FOR SALE

#### New Fabricated Steel for two Buildings

1—Heavy Building 40' 8 $\frac{1}{2}$ " by 145', 62' 10" to lower chord of truss. Weight of steel about 300 tons.

1—Light Building designed for three stories, 21' 8 $\frac{1}{2}$ " by 230', 37' 3" to lower chord of truss. Weight of steel about 130 tons.

Buildings are in our plant, but have never been erected. Rivets, Bolts and Working Drawings can be furnished. Immediate delivery can be made.

**Sizer Forge Co.**

Buffalo, N. Y.

### PUBLIC AUCTION

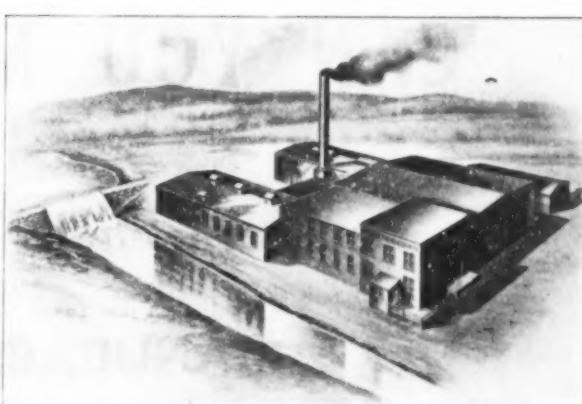
2,000 acres Lower Kittanning, same amount Upper Freeport; unknown quantity Pittsburg Big Vein; 1,300 acres of surface, with large amount mine timber; twenty-five dwellings; located at Newberg, Preston County, W. Va., main line B. and O. R. R. Sale 10 A. M., NOVEMBER 12, 1918, on the property. The right is reserved to reject any and all bids.

For Information Apply

**Virginia-Maryland Coal Corporation**  
 104 Marine Bank Building, BALTIMORE, MD.

### AN ISOLATED MILL FOR SALE

Suitable for any kind of manufacture  
 26,000 square feet floor space  
 34 acres of property, three tenant buildings  
 2-acre lake pure spring water



Located in Northern New Jersey, adjacent to Central Railroad of New Jersey and D. L. & W. R. R.

Excellent power plant—

Boilers, 350 horse-power  
 Engines, 150 horse-power  
 Electric generator 55 k.w. and motor 50 k. w.  
 Complete electric lighting equipment  
 1000 feet steel shafting.

100 per cent. sprinkled. Low insurance rates.  
 90,000-gallon Hungerford & Terry filter.

Write or call

**SUPERIOR THREAD & YARN CO.**  
 334 Fifth Avenue  
 NEW YORK CITY

## Bargains in Machinery and Supplies.

### FOR SALE

New 60 Cycles, Single-Phase, A. C. Motors, St. Louis Electrical Works make, 1800 H. P. M.

No.	H. P.	Voltages.	Net Prices.
6	3/4	110-220-440	\$20.50
6	1/2	110-220-440	24.00
12	1/4	110-220-440	31.00
5	1/2	110-220-440	41.00
2	3/4	110-220-440	51.00
6	1	110-220-440	60.00
3	1 1/2	110-220-440	76.00
6	2	110-220-440	90.00

Voltages not interchangeable.

Motors furnished with ball bearings.

Prices quoted include rails and pulleys.

Your inquiries for electric and steam equipment solicited, such as Alternating and Direct Current Units, Motors, Centrifugal Pumps and Air Compressors.

**Electric Machinery Equipment Co.**  
714 W Van Buren Street, Chicago, Ill.

### FOR SALE

1-14x36 Lane & Bodley Corliss Engine.

1-Steam Dryer System for Brick Plant of 25,000 per day capacity.

1-McIntosh & Seymour high-speed, 7x9 Engine.

1-Steele & Sons Brick Machine, Pug Mill, Hoisting Drum, Clay Feeder, Pulley Shafting, etc.

1-Dewey Brothers Locomotive.

**Jenkins Brick Company**

Montgomery

Alabama

#### We Make a Specialty of Dismantling

Old plants of every description, such as saw-mills, electric-light plants, etc. Our terms are spot cash. Advise us what you have to offer.

**THE PIEDMONT IRON & METAL CO.**

BALTIMORE, MD.

### JIB CRANES

Three Special Electric Gantry-Type Jib Cranes, 220-volt, D. C. or A. C. circuit, 3-ton capacity, 30-ft. radius. Rigidly built according to Government specifications. Never been used. Bargain.

**VICTOR R. BROWNING & CO.**  
17701 Lake Shore Blvd. CLEVELAND, OHIO

### OIL ENGINES FOR SALE

Four (4) Westman Heavy-Duty 50 H. P. and one (1) 35 H. P. Oil Engines. Never been used. Immediate shipment. These engines are suitable for Cotton Gins, Elevators, Pumping, Electric-Light Plants, etc.

**BAY CITY DREDGE WORKS**  
2609 Center Avenue Bay City, Mich

### 1 WESTINGHOUSE CO. GAS ENGINE

2-cylinder, vertical stationary type, No. 72, rated 26 H. P.; good condition. \$500 f. o. b. New Haven, Conn.

**The New Haven Sand Blast Co.**  
New Haven, Conn.

### FOR SALE

#### The Knitting Machinery of a Modern Southern Mill

We are offering for sale all of the machinery in our plant, consisting of about 20 Wildman Knitting Machines and Sleevers; about 50 Sewing Machines, and the entire plant complete, equipped for making ladies', misses' and boys' union suits; also vests and pants. Machinery in operation, and can be inspected at any time. Address

**SOUTHERN KNITTING MILL**

Care Manufacturers Record BALTIMORE

### FOR SALE

2-100 H. P. Fire-Tube Boilers, De Queen, Arkansas.

1-35 H. P. Fire-Tube Boiler, Mena, Ark.

1-Arrington & Simms 100 H. P. High-speed Steam Engine, Mena, Ark.

1-50 H. P. Type "Y" Fairbanks-Morse (1) Engine, Ozark, Ark.

1-75 H. P. Type "Y" Fairbanks-Morse (1) Engine, De Queen, Ark.

1-150 H. P. Type "Y" Fairbanks-Morse (1) Engine, De Queen, Ark.

1-Westinghouse 50 K. W. 3-phase, 60-cycle, 220-volt Generator, Ashdown, Ark.

1-130 K. V. Allis-Chalmers 3-phase, 60-cycle, 230-volt Generator, complete, with exciter and switchboard, De Queen, Ark.

1-50 K. W. Westinghouse Generator, 3-phase, 60-cycle, 230-volt, complete, with exciter and switchboard, De Queen, Ark.

2-80 H. P. Fire-Tube Boilers, complete, with breeching and singular stack; in good condition, Mena, Ark.

1-150 H. P. Corinth Boiler; first-class condition, De Queen, Ark.

**Commonwealth Public Service Co.**

311 Barnes Bldg. Muskogee, Okla.

### FOR SALE

1-Allis-Chalmers Engine, heavy duty rolling mill type, 225 H. P., 14-foot fly-wheel. Piston 16" x 48". Corless valves. Non-condenser. Excellent condition.

1-Erie Engine, 8" x 14" piston. Very good condition.

9-Struthers Wells & Co. steel cylindrical Rotors, Cast-Iron Doors, 11" x 5" x 7-1/2". Excellent condition.

2-150 H. P. Coatsville Boilers, return tubular, 72-4" Tubes 18" long, 125 lbs. pressure; almost as long as new.

2-1000-gallon Copper Stills, with steam coil and live steam, each equipped with about 7" vertical copper tube condensers.

10-Vertical Copper Tube Condensers, with steel jackets.

1-Mitts & Merrill Hog No. 5, together with edging grinder.

Various Steel and Galvanized Iron Tanks, from one to ten thousand gallon capacity. Address

QUEEN CITY IRON & METAL CO. Charlotte, N.C.

### TANKS

**FOR SALE**—3 Large Artificial Gas Tanks; 1 is 115 ft. in diameter, about 345 ft. in circumference and 30 ft. high; 1 is 80 ft. in diameter, about 245 ft. in circumference and 25 ft. high; 1 is 75 ft. in diameter and 22 ft. high. Tanks have double jacket around the sides, and columns for same. All in good condition.

**TRI-STATE PIPE CO., Bellaire, Ohio**

### HENRY POTTS & CO.

650 Real Estate Trust Bldg., Philadelphia

Will erect, paint or dismantle STEEL BUILDINGS OR STACKS.

Heavy MACHINERY HANDLED.

BOILERS installed.

Will purchase for cash PLANTS or MACHINERY.

Prompt and efficient service.

## CAN YOU MAKE CASTINGS?

*If so, Let Our Readers Know it through an advertisement in the*

## Southern Shops Seeking Contract Work

*Department of the*

### MANUFACTURERS RECORD

**The Columbus Iron Works Co., Columbus, Ga., wrote us a short time ago, as follows:**

*"We are pleased to advise that since running our ad. in 'Southern Shops Seeking Contract Work' department we have all the work we can take care of for the next six months. It certainly pays to advertise."*

If your plant is not running at full capacity, an advertisement in this department of the MANUFACTURERS RECORD outlining your special facilities will put you in line of securing some of the profitable work which foundries and machine shops in other parts of the country are compelled to sublet because of the greatly overcrowded condition now prevailing.

In these times it is a vital economy of war to keep your plant operating on a 100% capacity schedule, and an advertisement in the MANUFACTURERS RECORD may bridge the gap between your present production and your possible production. Try it.

10" x 36" 11" x 36" 12" x 36" 13" x 36" 14" x 36" 15" x 36" 16" x 36" 17" x 36" 18" x 36" 19" x 36" 20" x 36" 21" x 36" 22" x 36" 23" x 36" 24" x 36" 25" x 36" 26" x 36" 27" x 36" 28" x 36" 29" x 36" 30" x 36" 31" x 36" 32" x 36" 33" x 36" 34" x 36" 35" x 36" 36" x 36" 37" x 36" 38" x 36" 39" x 36" 40" x 36" 41" x 36" 42" x 36" 43" x 36" 44" x 36" 45" x 36" 46" x 36" 47" x 36" 48" x 36" 49" x 36" 50" x 36" 51" x 36" 52" x 36" 53" x 36" 54" x 36" 55" x 36" 56" x 36" 57" x 36" 58" x 36" 59" x 36" 60" x 36" 61" x 36" 62" x 36" 63" x 36" 64" x 36" 65" x 36" 66" x 36" 67" x 36" 68" x 36" 69" x 36" 70" x 36" 71" x 36" 72" x 36" 73" x 36" 74" x 36" 75" x 36" 76" x 36" 77" x 36" 78" x 36" 79" x 36" 80" x 36" 81" x 36" 82" x 36" 83" x 36" 84" x 36" 85" x 36" 86" x 36" 87" x 36" 88" x 36" 89" x 36" 90" x 36" 91" x 36" 92" x 36" 93" x 36" 94" x 36" 95" x 36" 96" x 36" 97" x 36" 98" x 36" 99" x 36" 100" x 36" 101" x 36" 102" x 36" 103" x 36" 104" x 36" 105" x 36" 106" x 36" 107" x 36" 108" x 36" 109" x 36" 110" x 36" 111" x 36" 112" x 36" 113" x 36" 114" x 36" 115" x 36" 116" x 36" 117" x 36" 118" x 36" 119" x 36" 120" x 36" 121" x 36" 122" x 36" 123" x 36" 124" x 36" 125" x 36" 126" x 36" 127" x 36" 128" x 36" 129" x 36" 130" x 36" 131" x 36" 132" x 36" 133" x 36" 134" x 36" 135" x 36" 136" x 36" 137" x 36" 138" x 36" 139" x 36" 140" x 36" 141" x 36" 142" x 36" 143" x 36" 144" x 36" 145" x 36" 146" x 36" 147" x 36" 148" x 36" 149" x 36" 150" x 36" 151" x 36" 152" x 36" 153" x 36" 154" x 36" 155" x 36" 156" x 36" 157" x 36" 158" x 36" 159" x 36" 160" x 36" 161" x 36" 162" x 36" 163" x 36" 164" x 36" 165" x 36" 166" x 36" 167" x 36" 168" x 36" 169" x 36" 170" x 36" 171" x 36" 172" x 36" 173" x 36" 174" x 36" 175" x 36" 176" x 36" 177" x 36" 178" x 36" 179" x 36" 180" x 36" 181" x 36" 182" x 36" 183" x 36" 184" x 36" 185" x 36" 186" x 36" 187" x 36" 188" x 36" 189" x 36" 190" x 36" 191" x 36" 192" x 36" 193" x 36" 194" x 36" 195" x 36" 196" x 36" 197" x 36" 198" x 36" 199" x 36" 200" x 36" 201" x 36" 202" x 36" 203" x 36" 204" x 36" 205" x 36" 206" x 36" 207" x 36" 208" x 36" 209" x 36" 210" x 36" 211" x 36" 212" x 36" 213" x 36" 214" x 36" 215" x 36" 216" x 36" 217" x 36" 218" x 36" 219" x 36" 220" x 36" 221" x 36" 222" x 36" 223" x 36" 224" x 36" 225" x 36" 226" x 36" 227" x 36" 228" x 36" 229" x 36" 230" x 36" 231" x 36" 232" x 36" 233" x 36" 234" x 36" 235" x 36" 236" x 36" 237" x 36" 238" x 36" 239" x 36" 240" x 36" 241" x 36" 242" x 36" 243" x 36" 244" x 36" 245" x 36" 246" x 36" 247" x 36" 248" x 36" 249" x 36" 250" x 36" 251" x 36" 252" x 36" 253" x 36" 254" x 36" 255" x 36" 256" x 36" 257" x 36" 258" x 36" 259" x 36" 260" x 36" 261" x 36" 262" x 36" 263" x 36" 264" x 36" 265" x 36" 266" x 36" 267" x 36" 268" x 36" 269" x 36" 270" x 36" 271" x 36" 272" x 36" 273" x 36" 274" x 36" 275" x 36" 276" x 36" 277" x 36" 278" x 36" 279" x 36" 280" x 36" 281" x 36" 282" x 36" 283" x 36" 284" x 36" 285" x 36" 286" x 36" 287" x 36" 288" x 36" 289" x 36" 290" x 36" 291" x 36" 292" x 36" 293" x 36" 294" x 36" 295" x 36" 296" x 36" 297" x 36" 298" x 36" 299" x 36" 300" x 36" 301" x 36" 302" x 36" 303" x 36" 304" x 36" 305" x 36" 306" x 36" 307" x 36" 308" x 36" 309" x 36" 310" x 36" 311" x 36" 312" x 36" 313" x 36" 314" x 36" 315" x 36" 316" x 36" 317" x 36" 318" x 36" 319" x 36" 320" x 36" 321" x 36" 322" x 36" 323" x 36" 324" x 36" 325" x 36" 326" x 36" 327" x 36" 328" x 36" 329" x 36" 330" x 36" 331" x 36" 332" x 36" 333" x 36" 334" x 36" 335" x 36" 336" x 36" 337" x 36" 338" x 36" 339" x 36" 340" x 36" 341" x 36" 342" x 36" 343" x 36" 344" x 36" 345" x 36" 346" x 36" 347" x 36" 348" x 36" 349" x 36" 350" x 36" 351" x 36" 352" x 36" 353" x 36" 354" x 36" 355" x 36" 356" x 36" 357" x 36" 358" x 36" 359" x 36" 360" x 36" 361" x 36" 362" x 36" 363" x 36" 364" x 36" 365" x 36" 366" x 36" 367" x 36" 368" x 36" 369" x 36" 370" x 36" 371" x 36" 372" x 36" 373" x 36" 374" x 36" 375" x 36" 376" x 36" 377" x 36" 378" x 36" 379" x 36" 380" x 36" 381" x 36" 382" x 36" 383" x 36" 384" x 36" 385" x 36" 386" x 36" 387" x 36" 388" x 36" 389" x 36" 390" x 36" 391" x 36" 392" x 36" 393" x 36" 394" x 36" 395" x 36" 396" x 36" 397" x 36" 398" x 36" 399" x 36" 400" x 36" 401" x 36" 402" x 36" 403" x 36" 404" x 36" 405" x 36" 406" x 36" 407" x 36" 408" x 36" 409" x 36" 410" x 36" 411" x 36" 412" x 36" 413" x 36" 414" x 36" 415" x 36" 416" x 36" 417" x 36" 418" x 36" 419" x 36" 420" x 36" 421" x 36" 422" x 36" 423" x 36" 424" x 36" 425" x 36" 426" x 36" 427" x 36" 428" x 36" 429" x 36" 430" x 36" 431" x 36" 432" x 36" 433" x 36" 434" x 36" 435" x 36" 436" x 36" 437" x 36" 438" x 36" 439" x 36" 440" x 36" 441" x 36" 442" x 36" 443" x 36" 444" x 36" 445" x 36" 446" x 36" 447" x 36" 448" x 36" 449" x 36" 450" x 36" 451" x 36" 452" x 36" 453" x 36" 454" x 36" 455" x 36" 456" x 36" 457" x 36" 458" x 36" 459" x 36" 460" x 36" 461" x 36" 462" x 36" 463" x 36" 464" x 36" 465" x 36" 466" x 36" 467" x 36" 468" x 36" 469" x 36" 470" x 36" 471" x 36" 472" x 36" 473" x 36" 474" x 36" 475" x 36" 476" x 36" 477" x 36" 478" x 36" 479" x 36" 480" x 36" 481" x 36" 482" x 36" 483" x 36" 484" x 36" 485" x 36" 486" x 36" 487" x 36" 488" x 36" 489" x 36" 490" x 36" 491" x 36" 492" x 36" 493" x 36" 494" x 36" 495" x 36" 496" x 36" 497" x 36" 498" x 36" 499" x 36" 500" x 36" 501" x 36" 502" x 36" 503" x 36" 504" x 36" 505" x 36" 506" x 36" 507" x 36" 508" x 36" 509" x 36" 510" x 36" 511" x 36" 512" x 36" 513" x 36" 514" x 36" 515" x 36" 516" x 36" 517" x 36" 518" x 36" 519" x 36" 520" x 36" 521" x 36" 522" x 36" 523" x 36" 524" x 36" 525" x 36" 526" x 36" 527" x 36" 528" x 36" 529" x 36"

## PIPE

## ALL SIZES

5,000 ft. 8 in. Pipe	25,000 ft. 2 in. Pipe
5,000 ft. 6 in. Pipe	20,000 ft. 1½ in. Pipe
20,000 ft. 2½ in. Pipe	25,000 ft. 1½ in. Pipe

## SECOND HAND

## IMMEDIATE DELIVERY

**JAMES F. GRIFFITH**

416-24 Moyer St.

Philadelphia, Pa.

MENTION MANUFACTURERS RECORD WHEN YOU WRITE

FOR SALE  
PIPE

## Second-Hand

All Sizes, ½" to 24"

Furnished with new threads and couplings, suitable for every practical purpose.

Also large assortment of Contractors' Equipment, Hoisting Engines, Boilers, Concrete Mixers, etc.; all thoroughly overhauled.

**Marine Metal & Supply Co.**  
167 South St. NEW YORK

PIPE ALL SIZES Bargain Prices.  
Second-Hand and New: IMMEDIATE DELIVERIES

8,000' of 12" pipe.  
10,000' of 8" pipe.  
10,000' of 6" pipe.  
10,000' of 4" pipe.  
15,000' of 3" pipe.  
50,000' of 2" pipe.  
50,000' of 1½" pipe.  
100,000' of 1" pipe.  
100,000' of ½" pipe.  
Also, a large stock of 16", 18" and 20"

Pipe & Contractors Supply Co.  
3 Dover Street NEW YORK

Wrought Steel Pipe  
FOR SALE

10,000 feet Wrought Steel Pipe, used only  
sixty days.

L. G. EVERIST, Inc.  
SIOUX CITY, IOWA

PIRON AND I WIRE AND P MALLEABLE  
STEEL PIPE MANILA ROPE P AND CAST  
PIPE FITTINGS

Large stock of good sound SECOND HAND  
PIPE in long straight lengths. No rust pits or  
eaten places; couplings and threads perfect

Largest stock of NEW pipe in the Middle West  
OHIO PIPE CO., Works and Yards, FINDLAY, OHIO

FOR SALE  
Second-Hand Pipe

Cut and threaded to any desired  
length. Pipe for steam, water, irrigation  
or other purpose. Write for  
prices. We can positively save you  
money. Your orders solicited. We  
are always in the market for scrap  
iron, metals, etc.

B. CASSELL & COMPANY

Chattanooga Tenn.

WROUGHT  
IRON PIPE

Thoroughly overhauled,  
with new threads and couplings.  
Guaranteed to give entire satisfaction.  
Pipe cut to sketch. It will pay to cor-  
respond with us.

**Albert & Davidson, Inc.**  
Oakland and Kent Sts.  
Brooklyn, N. Y.

## USED PUMP FOR SALE

One 9x12 Platt Double-Acting Triplex  
Pump, steel rods, brass-lined water cylinders,  
arranged for gas engine or belt drives.  
Parts available for placing water box 23  
feet below power head, for dug-well operation;  
capacity, 19.7 gallons per revolution  
piston displacement.

MERKLE MACHINERY COMPANY  
508 Interstate Bldg. Kansas City, Mo.

FOR SALE  
Second-Hand  
Equipment

5-150 H. P. Boilers (high pres-  
sure).  
2-150 H. P. Bessemer Gas En-  
gines.  
1-165 H. P. Bessemer Gas En-  
gine.  
2-110 H. P. Bessemer Gas En-  
gines.  
1-25 H. P. Bessemer Gas En-  
gine.  
2-888-ft. Ingersoll-Rand Com-  
pressors (belt driven).  
200 tons of 8-lb. "T" Rails.  
75,000 ft. second-hand Pipe (all  
sizes).

BANKARD LUMBER & MACHINERY CO.  
JOPLIN, MO.

## ENGINES FOR SALE

Two Single-Cylinder Ellis Corliss Steam  
Engines; size of cylinder, 22x42; speed, 65  
R. P. M. Both Engines overhauled and in  
good condition.

Burlington Grain Elevator Co.  
206 Merchants Exchange, ST. LOUIS, MO.

FOR SALE  
ONE FLY WHEEL

Eight feet in diameter, 21-in. face,  
good heavy rim; size of bore, 5 in.  
Price \$265.00

THE CYPRESS LUMBER CO.  
Apaachicola, Fla.

1876 THE MACHINERY HOUSE OF THE EAST  
FRANK TOOMEY, Inc. 1918

## LATHES

10" x 4' Climax.  
10" x 6' New Carroll Jamieson Quick  
Change.  
10" x 6' New Carroll Jamieson Quick  
Change.  
4-15" x 6' New Sidney D. B. G. Quick  
Change, swing 17".  
17-17" x 8" New National Quick Change.  
17" x 8" New Sidney D. B. G. Quick  
Change, swing 19".  
18" x 8" Rahr Mayer.  
18" x 8" Flather.  
18" x 8" Schumaker Boye.  
18" x 8" Reed.  
22" x 23" Fay & Scott.  
22" x 23" McCabe Double Spindle.

## TURRET LATHES

2-21" Jones & Lamson Geared Head.  
2-21" Davis Boring and Chucking Lathes.  
1½" S. & K. Back Geared Wire Feed.  
2-No. 1 Bardon & Oliver Hand Screw  
Machines.

HORIZONTAL BORING  
MILLS

4" Bar Niles Knee Type.  
2½" Bar Warney & Swasey Knee Type.

## MILLERS

No. 2 Kempsmith New Universal, with  
vertical attachment.  
No. 1½ Cincinnati Universal.  
No. 1 U. S. New Hand Miller.

## SHAPERS

4-14" New Steptoe.

1-14" Steptoe.

6-16" New Steptoe B. G.

2-24" New Steptoe B. G.

16" Bement Traveling Head.

GRINDERS

10" x 30" Brown & Sharpe.

10" x 24" Iroquois.

10" x 20" Bath.

No. 1 New Fraser Universal.  
No. 1 New Grand Rapid Universal  
Reamer and Cutter.

No. 2 Grand Rapid Universal Reamer  
and Cutter.

No. 100 New Wells Universal Reamer  
and Cutter.

No. 3 B. & S. Universal Reamer and Cutter.

## RADIAL DRILLS

42" Niles Plain Cone Drive.

30" Universal Plain Cone Drive.

42" New Canedy-Otto.

## DRILLS

36" New Superior Sliding Head.

32" New Superior Sliding Head.

30" G. & E. Sliding Head.

2-28" New Superior Sliding Head.

2-25" New Superior Sliding Head.

25" New Superior Sliding Head, with  
tapping attachment.

24" New Superior Stationary Head.

21" New Superior Stationary Head.

20" New Superior Stationary Head.  
29" New Champion Stationary Head.

## HAMMERS

350-lb. Sellers Single Frame Steam.

250-lb. New Little Giant Belt.

4-100-lb. New Little Giant Belt.

3-50-lb. New Little Giant Belt.

4-25-lb. New Little Giant Belt.

## PLANERS

36" x 36" x 8" Gray, two heads.

30" x 30" x 10" Flitchburg, one head.

24" x 24" x 8" Gray, one head.

## NUT TAPPERS

1½" to 2" Six-Spindle National.

1½" to ¾" Five-Spindle National.

3/16" to ½" Five-Spindle National.

## SLOTTERS

10" Newton Power Feed to Rotary Table.

## "STEAM AND ELECTRICAL EQUIPMENT"

## WATER TUBE BOILERS

1-250 H. P. Babcock & Wilcox Water-Tube Boiler, 150  
pounds steam working pressure.

## PORTABLE BOILERS

1-10 H. P. Marine Type Portable Boiler, 100 pounds  
steam working pressure.

1-20 H. P. Erie City Iron Works Portable Return  
Tubular Boiler, 100 pounds steam pressure.

## STEAM TURBINE A. C. SET

1-10 H. P. De Laval Steam Turbine, direct connected  
to two 37½ K. V. A. General Electric, 2300-volt, 60-  
cycle, 3-phase Alternators, with direct-connected  
exciter.

127-131 North Third St.

## A. C. OIL ENGINE UNIT

1-375 K. W. Fort Wayne 3-phase, 60-cycle, 2300-volt  
Alternator, direct connected to one pair of Diesel  
Vertical Oil Engines.

## OIL ENGINES

40 H. P. Mietz & Weiss Horizontal Oil Engine.

18 H. P. Mietz & Weiss Horizontal Oil Engine.

## MOTORS

Large stock of A. C. and D. C. Motors, new and used,  
from ½ to 250 H. P., in stock for immediate delivery.

## STEAM TURBINE A. C. SET

1-10 H. P. De Laval Steam Turbine, direct connected  
to two 37½ K. V. A. General Electric 2300-volt, 60-  
cycle, 3-phase Alternators, with direct-connected  
exciter.

## A. C. OIL ENGINE UNIT

1-375 K. W. Fort Wayne 3-phase, 60-cycle, 2300-volt  
Alternator, direct connected to one pair of Diesel  
Vertical Oil Engines.

DIRECT-CONNECTED UNIT,  
220-250 VOLTS

100 K. W. Crocker-Wheeler 250-volt, 8-pole Compound-  
wound Generator, direct connected to a 14" x 21"  
Hamilton Horizontal Corliss Engine, 150 R. P. M.

DIRECT-CONNECTED UNIT,  
110-125 VOLTS

100 K. W. General Electric Compound-wound Generator,  
direct connected to a Ball & Wood Horizontal Com-  
pound Automatic Engine, 250 R. P. M.

50 K. W. Bullock Compound-wound Generator, direct  
connected to an Erie City Iron Works Horizontal  
Automatic Engine, 290 R. P. M.

PHILADELPHIA, PA.

# For Sale

3-72" x 16' Horizontal Boilers.  
 1-40-H. P. Donegan & Swift Upright Steam Engine.  
 Wood Wheel Making Machinery. (Send for list.)  
 1-600-H. P. Hoppes Feed Water Heater.  
 1-10 x 12 Worthington Triplex Pump.

**The B. F. Goodrich Co.**  
 Dept. 37 AKRON, O.

## FOR SALE

Skinner Overhead Ten-Acre Irrigation Plant  
**\$1,800.00 on Farm**

ENGINE—Fairbanks Morse, type N. B., 15 horse-power, rev. p. m. 250; good condition; kerosene consumption; belt shift attachment and best.

PUMP—Fairbanks Morse Horizontal Centrifugal, 3" B. H. O. B.; good condition.

PIPING—About 750 feet 1½" and 1" Galvanized Pipe; about 946 feet 4" and 3" Black Feed Main.

GENERAL—Turning Apparatus, for operating overhead pipe, needing some repairs; about 478 Cast Iron Pipe Saddles, Pipe Connections, Fittings, etc.

**THE DOUBLE-CRESCENT HOG FARM**  
 FELLSMERE, FLORIDA

**Complete 3-Ton Refrigerating Outfit**

Used short time in a Military Camp. Fine condition, including 5 H. P. Electric Motor.

1-Vulter 7-ton Ice Plant, complete with motor. Used only one season.

1-De La Vergne 15-ton Ice Machine. Used four seasons.

**ALBERT HERMAN**  
 201 Baldwin Ave. JERSEY CITY, N. J.

## FOR SALE

Two 250 and one 275 H. P. Edgemar and Heine Boilers; four 361 H. P. B. & W. Boilers, complete, 200 lbs. steam; two 250 and one 300 H. P. Stirling Class F Boilers, almost new, with new tubes complete; two B. & W. Boilers, 225 H. P. each, with stokers and hand-fired; one 78" Stack, 15' ft. long, heavy metal; two 100 H. P. Horizontal Return Tubular Boilers, 125 lbs. steam; 7x10 Saddle-Tank Locomotives, 24" and 30" gauge; 12x14 Horizontal Automatic C. C. Engine; two carloads line 3, 4, 6 and 8" w.r.t. Pipe; 15,000 ft. 4" w.r.t. Pipe; 150' 4" Boiler Tubes, 16 and 18 ft. long; 10' 6" Cast Iron B. & S. Pipe; 10,000 ft. 7½" Galvanized and Bright NEW Wire Ropes, long and short lengths; 60,000 ft. 1½", 3½", 5½", 7½", and 10' 8" Plow Steel Wire Ropes, long and short lengths; two reels, 1½" Plow Steel Wire Ropes, 5000 ft. long each; 60 reels 1" to 2½" diameter. Wire Ropes, different lengths, fine condition; two 250 H. P. Locomotive-Type Boilers, 150 lbs. steam, all complete; four 8" Automatic Steam Valves; 1000 H. P. NEW Closed Heater.

**EASTON MACHINERY CO.**  
 Drake Bldg. EASTON, PA.

## Corliss Engines FOR SALE

Slightly used, but in first class condition.

1-100 H. P. Hamilton Corliss Engine.

1-150 H. P. Hamilton Corliss Engine.

Available for immediate delivery.

**The Hamilton Machine Tool Co.**  
 HAMILTON, OHIO

## PUMP FOR SALE

One 8x10 Platt Double Acting Triplex Pump, cold water valves, iron water pistons, solid brass removable cylinders, brass rods, brass-brushed rod glands and boxes, and rats hide pinion; capacity, 550 G. P. M.; water pressure, 120 pounds; motor base and inter gears, and direct connected to one 50 H. P. 900 R. P. M. 2800-volt 3-phase 60-cycle Fort Wayne Alternating Current Motor.

**MERKLE MACHINERY COMPANY**  
 508 Interstate Bldg. Kansas City, Mo.

If you wish to keep posted on the progress of the South, read the MANUFACTURERS RECORD. Price \$6.50 a year, six months for \$3.50.

## BARGAINS ENGINES

150 H. P. 16x15 McEwen Automatic, with extra head.  
 200 H. P. Skinner Automatic.

### BOILERS

4-72x18 Lapped Joint, Erie City Boilers.  
 4-66x16 Lapped Joint, Union Iron Works.  
 3-72x18 Lapped Joint, Union Iron Works.  
 4-72x18 Butt Strapped, Erie City Boilers.

### ENGINE GENERATOR SETS

100 K. W. Westinghouse, 250 volts, direct connected to twin cylinder vertical Westinghouse Engine.  
 150 K. W. Jeffrey, 250 volts, belted to 18x19 McEwen Engine.  
 250 K. W. Ridgway, 250 volts, direct connected to 28x24 Ridgway Automatic Engine.  
 150 K. W. Western Electric, 250 volts, direct connected to 18x36 Monarch Corliss Engine.  
 60 K. W. General Electric, 250 volts, belted to one 12x 12 Erie City Engine.  
 50 K. W. Fairbanks-Morse, 250 volts, direct connected to 85 H. P., 3 cylinder vertical Fairbanks-Morse Gas Engine.  
 30 K. W. Westinghouse, 250 volts, direct connected to one 50 H. P., 2 cylinder Westinghouse Gas Engine.  
 125 K. V. A., 3-phase, 60-cycle, 2200-volt Fairbanks-Morse, belted to 150 H. P. 3 cylinder Fairbanks-Morse Oil Engine.  
 55 K. W. Westinghouse, 115 volts, direct connected to one 85 H. P. 2 cylinder Marinette Gas Engine.  
 10 K. W. Lincoln, 125 volt, belted to 20 H. P. St. Marys Gas Engine.

### HOIST

25 H. P. Byers, 3-drum Steam Hoist; extra drum for operating bull wheel, 80' jin pole, 60' boom, 1000' cable, 3/4-yard clamshell bucket. No boiler. Never used.

### SHOVEL

1-Class 80 Atlantic Steam Shovel, 3½-yard bucket, complete.

**THE MOYERS-BENNETT CO.**  
 SCHMULBACH BLDG. WHEELING W. VA.

## EQUIPMENT FOR SALE

3 72"x18" Horizontal Return Tubular Boilers; butt-strap construction.

3 72"x18" Horizontal Return Tubular Boilers; standard construction.

3 72"x16" Horizontal Return Tubular Boilers; standard construction.

1 17"x24" Four-Valve Atlas Automatic Engine.

1 14"x34" Hoffman Billings Corliss Engine; RH girder-frame type.

1 22"x42" Vulter RH Corliss Engine; girder-frame type.

1 30,000 gal. Steel Tank mounted on an 80' steel tower.

1 450-ton-capacity Steel Storage Bin.

1 ½-ton Vulcan Steam Shovel mounted on traction wheels.

1 No. 0 Three Full Revolving Steam Shovel; ½ yd. dipper; equipped with skipper shaft; mounted on traction wheels.

1 No. 7 Chambers Brick Machines.

1 Chambers Pug Mills.

1 7" Dry Pan.

WE BUY AND SELL MACHINERY OF ALL KINDS.

Let us know your wants.

**MAY & TURNER CO.**

1503 Healey Bldg.

ATLANTA GEORGIA

## HORIZONTAL RETURN TUBULAR BOILERS

2-72"x18" "Pennia, Iron Works"—bare—with front fixtures.

1-60"x16" "Coatesville," butt strapped, 125 lbs. pressure, full front fixtures.

**L. F. SEYFERT'S SONS, Inc.**

437 N. 3rd Street PHILADELPHIA

## BOILER AND PUMP

FOR SALE—No. 1 Type "M" Vertical Water Tube Boiler, complete; 105 horse power, 150 lbs. working pressure. In good condition, as reported by inspector.

Worthington Pump, type "B," size 11x7½x12, capacity 300 gallons per minute.

**CASWELL TRAINING SCHOOL**

KINSTON, N. C.

## Boiler and Pumps

FOR SALE—IMMEDIATE DELIVERY.

1-78"x16" Return Tubular Boiler, with 160 new 3" charcoal iron tubes; good for 125 lbs. pressure and equipped with Murphy Automatic Smokeless Stoker.

1-7x4½x5 Snow Duplex Boiler Feed Pump.

1-6x4x6 Buffalo Duplex Boiler Feed Pump.

1-5½x3½x5 Snow Duplex Boiler Feed Pump.

All pumps in first-class condition.

**DUNKIRK LAUNDRY CO.**  
 DUNKIRK, N. Y.

## (2) 150 H. P. Geary Water Tube

## BOILERS

Insured 150 lbs. with Roney Strokers, Breaching and Stack.

**The Herfurth Engine Co., Inc.**

ALEXANDRIA, VA.

## OIL ENGINE

For Sale—Arkansas point. One 50 H. P., type "Y," vertical Fairbanks-Morse Oil Engine. Two years' service. Discontinued account of transmission line.

**Commonwealth Public Service Co.**

311 Barnes Building, MUSKOGEE, OKLA.

## FOR SALE

One 12"x36" Green Engine in A-1 condition for immediate shipment.

**Cocker Machine & Foundry Co.**  
 GASTONIA, N. C.

## FOR SALE

### Machine Shop Tools

1-Bertsch 12" Black Sheet Metal Shear.

1-Lenox Circular Disk Shear.

1-Queen City Punch and Shear (double).

1-National (2-head) Bolt and Pipe Machine.

1-Duss and Kemp 10-ft. Sheet Metal Brake.

1-Queen City Type D 36" Punch and Shear.

1-Q. M. S. Circular Cold Saw.

1-Dupont Belt Hammer.

1-Tate Tool Co. No. 12" Steam Hammer.

1-J. T. Ryerson & Son Combination Punch and Shear, 30" gap.

1-Fairbanks Type E Hammer.

1-12" Drill.

1-12" Southwind Lathe.

1-30" American Radial Drill.

1-National 20" x 12" Lathe.

1-21" American Shaper.

Air Drills, Air Compressors, Electric Drills, Twist Drills and Various Other Tools.

If interested send for full list.

**MACHINERY & SUPPLY CO.**

Greensboro, N. C.

We own and offer for prompt shipment

## BOILERS

3-300 H. P. Stirling Water Tube Boilers, all fittings and fixtures, 8 years old, F. & C. inspection, 150 lbs.

1-72x18, 150 H. P. H. R. T. Boiler, all fittings and fixtures, 110 lbs.

1-40 H. P. Ames locomotive-type Boiler, all fittings and fixtures, 100 lbs.

## HEATER

1-750 H. P. Erie City Closed Type, brass tubes, all necessary fittings

## STACK

1-54"x80" Guyed Steel Stack, complete with guy wires and cast-iron base.

**The Hawkins-Hamilton Co., Inc.**  
 Richmond, Va.

## BOILERS

### For Quick Shipment

5-250 H. P. Wickes Vertical Water-Tube Boilers, 150 lb. pressure

1-300 H. P. Wickes Vertical Water-Tube Boiler, 150 lb. pressure

2-425 H. P. B. & W. Boilers, 150 lb. pressure

6-250 H. P. B. & W. Boilers, 150 lb. pressure

1-250 H. P. B. & W. Boiler, 150 lb. pressure

2-210 H. P. B. & W. Boilers, 150 lb. pressure

2-500 H. P. Keeler Boilers, 150 lb. pressure

1-400 H. P. Stirling Boiler, 150 lb. pressure

1-261 H. P. Stirling Boiler, 150 lb. pressure

1-150 H. P. Stirling Boilers, 150 lb. pressure

1-425 H. P. Heine Boiler, 150 lb. pressure

3-72"x16" Tubular Boilers, 150 lb. pressure

1-72"x16" Tubular Boiler, 150 lb. pressure

2-66"x16" Tubular Boilers, 150 lb. pressure

5-66"x16" Tubular Boilers, 150 lb. pressure

2-54"x11" Tubular Boilers, 150 lb. pressure

And other makes and sizes.

## STEEL SMOKE STACKS

1-14x36 Corliss Engine.

1-6-ton Whiting Cupola and Blower.

1800 Gasoline Engines, New.

**J. F. DAVIS**

1408 Harris Trust Building CHICAGO, ILL.

## MARINE BOILER FOR SALE

75-Horse-power Scotch Marine Boiler, Hartford Inspection, 120 lbs. pressure. Price, \$1250.

## Strasburg Steam Flouring Mills

STRASBURG, VA.

## BOILERS FOR SALE

2-55 H. P. Boilers, H. R. T., 54"x12", 100 lbs. steam.

2-150 H. P. Boilers, H. R. T., 78"x18", 100 lbs. steam.

2-125 H. P. Boilers, H. R. T., 72"x18", 100 lbs. steam.

1-Manning Boiler, 150 H. P., 125 lbs. complete with stack.

1-Stack, 24" dia. x 60' long, self-supporting.

**JOHN M. GREENE**, 261 Drexel Bldg., Philadelphia, Pa.

## BARGAINS

1-150 H. P. Return Tubular Boiler complete.

1-130 ft. Sullivan WB-2 Air Compressor.

1-14x36 Hamilton Corliss Engine.

1-10x14 Davenport 30' Saddle Tank Locomotive.

Send us your inquiries.

## HODGSON MACHINERY CO.

Knoxville, Tenn.

## Heating Boilers

1-54"x16" Fire Box Heating Boiler.

1-72"x16" Kewanee Fire Box Heating Boiler.

Fire condition. Practically as good as new. Immediate delivery.

## PFANNMUELLER ENGINEERING CO.

1733 First National Bank Bldg. Chicago, Ill.

## BARGAINS

1-150 H. P. Return Tubular Boiler complete.

1-130 ft. Sullivan WB-2 Air Compressor.

1-14x36 Hamilton Corliss Engine.

1-10x14 Davenport 30' Saddle Tank Locomotive.

Send us your inquiries.

## FOR SALE

1-Tank 9' 6" dia., 108' 0" long, steel dished

head, with cast-iron hinged doors, 3½" plate, two standard domes; condition A1; estimated weight, 45 tons. Good for 50 lbs. pressure.

**LA CROSSE TRACTOR CO., LA CROSSE, WIS.**

## FOR SALE

1-Tank 9' 6" dia., 108' 0"

## BOILERS

4-450 H. P. Sterling Water Tube Boilers, 175 lbs.  
3-400 H. P. Altman & Taylor Water Tube Boilers, 150 lbs.  
2-400 H. P. B. & W. Water Tube Boilers, 165 lbs.

## LOCOMOTIVE TYPE BOILERS

1-40 H. P.; 1-65 H. P.; 1-125 H. P.; 1-150 H. P.

## LOCOMOTIVE CRANES

1-20-Ton Industrial, 48 ft Boom.

1-20-Ton Orton & Steinbrenner.

HOISTING ENGINES, DERRICKS, SHOVELS,  
DUMP CARS, CONTRACTORS' EQUIPMENT

WE PURCHASE COMPLETE PLANTS—

What have you for sale?

Sun Power Equipment Company  
COMMERCIAL TRUST BLDG., PHILADELPHIA, PA.

## WHEELAND CIRCULAR SAW MILL

Capacity 20,000 feet per day of 10 hours

All machinery complete with belting, saws, ample power, blacksmith tools, lumber carts, etc. Write for price and list of machinery and blue print of mill.

## H. P. WYMAN LUMBER COMPANY, Inc.

BRISTOL

VIRGINIA

## HIGH SPEED

## TEAM HOISTING ENGINE

Single-cylinder, single-drum, high-speed Hoisting Engine; built especially for handling material elevators, etc., but suitable for any kind of hoisting or haulage where high speed is desired. It will hoist 1500 pounds at the rate of 400 ft. a minute. Cyl. 16 inches in diameter and 23 $\frac{1}{2}$  inches between flanges, mounted on the crank-shaft, and operated by a cone friction. Cyl. size 1x10; has a 35x55 boiler and ample surface. Price on request—and it is a real bargain. Immediate shipment.

AMERICAN HOIST &amp; DERRICK CO.

ST. PAUL, MINN.

BOILERS  
FOR SALE

H. P. Heine, water tube, butt strapped, per 1911; used 6 years; guarantee Maryland Casualty Insurance, 150 lbs. H. P. horiz. tubular, 75"x18", butt strapped, 36"x55". No. 12 stack, full front; guaranteed Hartford Insurance, 125 lbs. H. P. Pennsylvania, portable return tube, on skids, butt strapped, 125 lbs. pressure; used only six months.

Hackley Morrison  
Richmond, Virginia

COMPLETE  
POWER PLANT

Consisting of:

1-McCormick Corliss Engine, 18x36, direct connected to 150 K. W., 240-volt Westinghouse Electric D. C. generator.

6 K. W., 250-volt General Electric Generator, 255 R. P. M., belted to a 12x12 Erie City engine.

2-20 Muskegon Boiler, with full float, grates and fixtures, butt strapped, triple riveted.

Electric Feed Water Heater, Feed Water Pump, Oiling System and Switchboards.

Immediate delivery.

—THE—  
Myers-Bennett Co.  
Kaukauna Bldg., Wheeling, W. Va.

## BOILERS

4-450 H. P. Sterling Water Tube Boilers, 175 lbs.  
3-400 H. P. Altman & Taylor Water Tube Boilers, 150 lbs.  
2-400 H. P. B. & W. Water Tube Boilers, 165 lbs.

## LOCOMOTIVE TYPE BOILERS

1-40 H. P.; 1-65 H. P.; 1-125 H. P.; 1-150 H. P.

## LOCOMOTIVE CRANES

1-20-Ton Industrial, 48 ft Boom.

1-20-Ton Orton & Steinbrenner.

HOISTING ENGINES, DERRICKS, SHOVELS,  
DUMP CARS, CONTRACTORS' EQUIPMENT

WE PURCHASE COMPLETE PLANTS—

What have you for sale?

REBUILT MACHINERY  
ALL IN STOCK

BOILERS: 2-72x18; 2-72x16; 2-66x16; 1-60x16; 1-54x14; 2-48x16; 2-48x14.

BOILER TUBES: 20,000 feet of 4-in.; 10,000 feet of 3 $\frac{1}{2}$ -in.; 5000 feet of 3-in.ENGINES: 14x16 Buckeye; 14x21 Lane & Bodley; 14x18 Chandler & Taylor; 12x30 Lane & Bodley Corliss; 12x18 Atiess; 11x13 Russell; 10x14 Chandler & Taylor; 9x12 new Nagle; 10x12 Erie; 9x14 Allfree; 7 $\frac{1}{2}$ x14 Brownell.

MOTOR GENERATOR SET: 1-100 K. W. Morgan-Gardner, 250-volt, D. C. Generator, direct connected to a 150 K. W. A. General Electric 3-phase, 60-cycle, 2300-volt, 600 R. P. M. synchronous motor, with switchboards, instruments, etc.

GENERATORS—60-CYCLE: 175 K. W. Westinghouse, 3-phase, 220-volt at 300 R. P. M.; 150 K. W. G. E., 3-phase, 220-volt at 600 R. P. M.; 85 K. W. Allis-Chalmers, single phase, 220-volt at 900 R. P. M.; 90 K. V. A. Electric Machinery Company 3-phase, 220-volt at 1200 R. P. M.; 75 K. W. Fairbanks-Morse, 240-volt, 900 R. P. M.

MOTORS—3-PHASE, 60-CYCLE: 150 H. P. new General Electric, 440-volt, 730 R. P. M.; 100 H. P. new General Electric, 440-volt, 720 R. P. M.; 100 H. P. new General Electric, 440-volt, 900 R. P. M.; 75 H. P. new General Electric, 220-volt, 900 R. P. M.; 50 H. P. new Allis-Chalmers, 440-volt, 900 R. P. M. (slip ring); 40, 30, 25 H. P., all new General Electric, 220-volt, 1200 R. P. M. Also other sizes.

MOTORS—D. C., 250 VOLTS: 100 H. P. Allis-Chalmers at 600 R. P. M.; 55 H. P. General Electric at 900 R. P. M.; 30 H. P. Northern at 600 R. P. M.; 25 H. P. Fischer at 500 R. P. M.; 1-20 H. P. Crocker-Wheeler at 750 R. P. M.; 15 H. P. Phoenix at 1750 R. P. M.; 10 H. P. Jantz &amp; Leist at 900 R. P. M.; 8 H. P. at 1350 R. P. M., direct connected to iron-frame swing saw.

## POWER PLANT MACHINERY AND ACCESSORIES

Send us your requirements

THE RANDLE MACHINERY CO.

1734 Powers St.

Cincinnati, Ohio

Manufacturers Record, the Medium for Machinery Advertisements.

## Boston Iron and Metal Co.

## Buyers of Scrap Iron and Metals

## Complete Plants Purchased

BALTIMORE

MARYLAND

## FOR

## WIN THE WAR SERVICE

AND IMMEDIATE DELIVERY, WE OFFER A No. 1 APPARATUS  
PARTIAL LIST AS FOLLOWS

## BOILERS

1-1400 H. P. Complete Boiler Plant, consisting of:

4-350 H. P. Stirling, Class N, No. 16, 150 lbs. steam pressure, 150 degrees superheat Boilers, complete, with all piping, valves, breeching, heaters, pumps, etc.

2-400 H. P. A. &amp; T. B. &amp; W. Steel Header, 175-lb., re-erection, triple riveted butt joint, with Green chain-grate stokers.

1-500 H. P. B. &amp; W. Steel Header, 185 lbs. Allow. Butt Joint, Double Riveted, with Chain Grate Stokers.

1-557 H. P. Stirling Lap Seam Drum, 150-lb. perfect condition, hand fired.

7-72-in. x 18-ft. triple riv., butt joint, 150-lb. allow., hand fired; stacks and all fittings.

1-250 H. P. Steel Header A. &amp; T. B. &amp; W. type Boiler, 175 lbs. Allow., Triple Riveted, Butt Joint Drums. Hand Fired.

2-250 H. P. Heine, 150 lbs. allowance, Hand-Fired Boilers; first-class condition.

## 60-CYCLE UNITS

2-600 K. W. General Electric, 60-cycle, 3-phase, 220-volt, R. F. Alt., dir. con. to H. D. cross-compound Corliss engine.

1-350 K. W. Westinghouse, 25-cy., 3-ph., 440-v., R. F. Alternator, dir. con. to heavy-duty Ball automatic engine.

3-1000 K. V. A. Westinghouse, 25-cy., 3-ph., 440-v. Alternator, with cross-compound, heavy-duty Corliss engines.

## 25-CYCLE UNITS

2-300 K. W. Westinghouse, 25-cy., 3-ph., 440-v., R. F. Alternator, dir. con. to cross-comp. Allis-Chalmers, heavy-duty, double-ported, double-eccentric engines.

1-350 K. W. Westinghouse, 25-cy., 3-ph., 660-v., R. F. Alternator, dir. con. to heavy-duty Ball automatic engine.

3-1000 K. V. A. Westinghouse, 25-cy., 3-ph., 440-v. Alternator, with cross-compound, heavy-duty Corliss engines.

## DIRECT CURRENT UNITS

1-1600 K. W. General Electric, 250-v., D. C. Generator, direct connected to heavy-duty Cross-Compound Corliss Engine.

## TURBINES

1-1000 K. W. (old rated actual capacity approximately 1500-1800 K. W.) Westinghouse Horizontal Condensing Turbo Alternator Unit, 60-cy., 3-ph., 230-440-v., 1800 R. P. M., complete, with surface condensers, piping, etc., to make complete installation.

1-930 K. V. A. Westinghouse-Parsons Condensing Turbo Alternator, 80 per cent. P. F., 60-cy., 3-ph., 2300-v., 1200 R. P. M., complete, with condenser.

1-500 K. W. Allis-Chalmers (New) Turbo Alternator, without condenser, 80 per cent. P. F., 60-cy., 3-ph., 2300-v.

1-1500 K. W. Westinghouse-Parsons Condensing Turbo Alternator (Old Rated), approximately 2500 K. W. capacity, 60-cy., 2-ph., 2400-4800-v., with Wheeler condenser.

## FREQUENCY CHANGER SET

1-1000 K. W. Westinghouse Frequency Changer Set, 60-cy., 3-ph., 2300-v., to 30-cy., 6000-v., on sub-base and solid shaft, with dir. con. exciter.

## ROTARIES

1-250 K. W. Westinghouse, 25-cy., 3-ph., 440-v., R. F. Alternator, 370-r., A. C.; 550-v. D. C., with 3-100 K. V. A. transformers, 6000-v. primary panel, etc.

1-600 K. W. G. E. 60-cy., 3-ph., 440-v., A. C.; 600-v. D. C., with transformers 13,200-v. primary, panel, etc.

## MOTORS

1-1200 H. P. General Electric, 25-cy., 3-ph., 2200-v., 250 R. P. M. Induction Motor, complete, with shaft extension both ends.

1-250 H. P. Burke, 60-cy., 2 or 3-ph., 2300-v. Synchronous Slip-Ring Motor, with panel, coupled to 24-in. Platt twin rotating pump, Twenty Million G. P. D., 45-ft. head.

PAUL STEWART & COMPANY  
CINCINNATI, OHIO

## NEW BOILER TUBES

Immediate Shipment from Stock

100—4" x 14 ft

At Special Price

Other Sizes in Stock

HYDE &amp; COMPANY, INC. PITTSBURGH

## LARGE CORLISS ENGINE

## FOR SALE

Cylinder, 24x42; fly-wheel, 16 feet diameter; about 200 horse-power. Excellent condition.

SCHADEWALD MILLS  
3rd and Huntingdon Sts. Philadelphia, Pa.









## For Sale—Great Bargain POWER PLANT READY TO RUN Immediate Shipment from Kentucky

1—125 K. W. Goodman, 250/275-volt, 550 R. P. M., compound wound Generator, belted to a 16x17 McEwen center-crank engine, complete with oiling system, belt, etc.

1—Switchboard for same, complete instruments, circuit breaker and switches.

1—72"x18" Tudor H. R. T. Boiler, 115 lbs. steam pressure allowed, complete with full flush fronts, all necessary fittings and trimmings, stacks, breechings, etc.

1—60"x16" Tudor H. R. T. Boiler, same specifications.

2—Boiler Feed Pumps for same.

Price complete as described \$5750, f. o. b. cars Kentucky.

If interested, use wires quick—our expense.

Address:

WOOD & LANE COMPANY  
St. Louis, Mo.

WALWORTH WELDED TUBE  
RADIATORS  
FOR STEAM 10 TO 50 FT. RADIATION  
5 Cents Per Pound  
THE HERFURTH ENGINE CO., Incorporated  
Alexandria, Va.

### FOR SALE

3 retorts or cylinders, 45 ft. long, 6 ft. diameter,  $\frac{1}{2}$  boiler plate, one detachable head, stand 125 lbs. pressure, 28-in. track inside. Lime or feed grinder, made by Sturtevant Co., French burr stones about 3 ft. diameter.

E. BEAN & SON COMPANY  
JACKSONVILLE, FLA

ICE PLANTS  
1—50 ton Ice Plant, York, steam driven.  
1—50 ton Ice Plant, Erie, steam driven.  
1—30 ton Ice Plant, Erie, steam driven.  
1—50 ton Ice Plant, Viliter, steam driven.  
1—15 ton Ice Plant, York, chain driven.  
1—6-ton Ice Plant, York, belt driven.

### REFRIGERATING MACHINES (Steam Driven)

1—90-ton Ref. Mch., York, steam driven.  
1—80-ton Ref. Mch., Erie, steam driven.  
1—80-ton Ref. Mch., Viliter, steam driven.  
2—70-ton Refrig. Machines, De La Vergne, steam driven.  
3—50-ton Refrig. Machines, steam driven.  
1—49-ton Ref. Mch., Wegner, belt driven.  
1—40-ton Ref. Mch., Wolf, steam driven.  
1—25-ton Ref. Mch., Wolf, steam driven.

### ICE TANKS

1—42 Cans, complete, De La Vergne.  
1—562 Cans, complete, York.  
2—580 Cans, each, complete, De La Vergne.  
1—460 200-lb. cans, complete.  
1—500 200-lb. cans, complete.  
1—560 300-lb. cans, complete.

### REFRIGERATING PLANTS (Belt Drive)

1—18-ton Belt or Steam-drive Viliter.  
2—10-ton Belt Viliter, upright, enclosed, complete.  
1—10-ton Belt, Baker Horizontal, open, complete.  
1—5-ton Belt, Remington, complete, Cans, Receivers, Accumulators, Hoists, Pumps, etc.

### BERRYMAN'S Refrigerating Machinery EXCHANGE

The Bourse, PHILADELPHIA, PA  
30 Church Street NEW YORK, N. Y.

### WAGONS AND TRUCK FOR SALE

14—4 and 6-Horse Wagons, our own make, in good condition; also 5-ton Steel-Body Dump Truck Hydraulic Hoist, in good working order.

BALTIMORE QUARRIES CO.  
600 Law Bldg. Baltimore, Md.

## FRICITION SAWS FOR SALE

4—No. 3 Ryerson high speed, power feed—with motors—located at Alliance, Ohio, and Indiana Harbor (Indiana) Works. B'g bargains. For full particulars, address

Purchasing Department  
American Steel Foundry  
McCormick Bldg. CHICAGO, ILL

## IRON AND STEEL PULLEYS FOR SALE

Lot of slightly used iron and steel pulleys—all sizes.

Foltz Mfg. & Supply Co.,  
Hagerstown, Md.

## TRUSS SPAN

FOR SALE—One E 21 Coopers, Loading Standard-gauge, Through Pin Truss Span, 147 feet long; approximate weight, 75 tons. For particulars, apply to

LEROY SPRINGS, President  
LANCASTER SOUTH CAROLINA

## Railroad and Contractors' Equipment and Supplies.

### STEAM SHOVEL

THEW, type 1, 30 ton, full circle swing, 1-1/8 cu. yd. dipper, traction wheels. Good as new. Immediate delivery.

#### STEEL RAILS

500 tons 50-lb. Relay.  
175 tons 60-lb. Relay.  
13 tons A. S. C. E. New.

#### LOCOMOTIVES

VULCAN 24-in. gauge, 7x12 in. 9-ton four-driver saddle tank, Shop No. 2333.

BALDWIN 36-in. gauge, 10x16 in. four-driver saddle tank. Immediate delivery.

#### BUCKETS

Steubner's Excelsior-Type Bottom-Dump Concrete Buckets, 7 of 1-yd. capacity, 8 of 1/2 yd. capacity.

#### DUMP CARS

WESTERN 36-in. gauge, 4-yd. 2-way, steel-lined floors, 8 cars.

#### HOISTS

LIDGERWOOD 7x10-in. D. C. D. D. Derrick Hoist, skeleton, with No. 4 boom swinging gear, No. 2906.

LIDGERWOOD 9x10-in., D. C. double-friction drum tandem; Reversible Link Motion Cableway Hoist, skeleton. Good as new. No. 2302.

#### CONCRETE MIXER

SMITH No. 10, with gasoline engine on truck.

### E. C. SHERWOOD

50 Church Street New York City  
Telephone 3322 Cortlandt

### For Sale Combination Steam Shovel LOCOMOTIVE CRANE

Type B, Erie Combination Steam Shovel Locomotive Crane, Shop No. 258, built 1917. Mounted on four broad-tired traction wheels; has 32' straight steel locomotive crane boom, 3/4-yd. Owen clam-shell bucket; also has standard shipper shaft steam shovel boom, 3/4-yd. dipper, with 12' 6" dipper stick (never used). Engines and drums equipped for two-line clam-shell work; also power drum for raising and lowering boom; belt strapped boiler, pass any city. Machine has only seen 140 days' service. Can be inspected working as crane. Immediate shipment from Central Wisconsin. Truck frame can be fitted with standard-gauge railroad wheels, procurable from Ball Engine Co. We own this Crane, and offer same subject to prior sale. Mechanical condition guaranteed. Revolving and self-propelling. Price, loaded, \$100. Terms, cash.

KERN-HUNTER CO., Inc.  
208 Wells St. MILWAUKEE, WIS.

### FOR IMMEDIATE DELIVERY

#### One-Mile Tramway & Equipment

3600-ft. x 1 1/4-in. Locked Coil Track Cable.  
5280-ft. x 3/8-in. Locked Coil Track Cable.

10,650-ft. x 3/8-in., 6/7 C. C. Steel, Lang Lay.

4500-ft. x 3/8-in., 6/7 Plow Steel, Lang Lay.

2/3000-ft. x 1-in., 6/7 Scotch Plow Steel, Lang Lay.

750-ft. x 2-in. 6/10 Plow Steel, Anchor Weights and Carriages.

576-ft. x 2-in. Flatwire, 0. C. Steel, Anchor Weights.

30-ton Steel Wire Rope,  $\frac{1}{2}$  to  $\frac{1}{4}$  in.

10-ton Galvanized Guy Rope,  $\frac{1}{2}$  in. to 1 1/4 in.

200 ft. Steel Wire Baling, 6 in. to 20 in.

Steel Blocks, New, 18-in. for 1-in. Wire Rope.

10-ton Bridle and Sling Chain,  $\frac{1}{2}$  in. to 1 in.

2 Ton Mauls, 8 to 30-lb.

1-ton Stone Dogs (Heavy).

All First-Class Second-Hand Condition

Your Inquiries Solicited

John F. Meighan, 885 Third Ave., N. Y. City

RAILS, MACHINERY, ETC.

40-LB. RELAY RAILS—500 tons, located at Mobile, ready for immediate shipment.

25-LB. RELAY RAILS—75 tons, complete with splice bars.

DRYKILN—Moore Kiln, 24x90 feet; splintered condition.

DRYKILN TRUCKS—80 Roller-Bearing Trucks, 6 feet long; practically new.

BLOWER—Buffalo No. 8; good as new.

RADIATORS—16 Cast-Iron Radiators for steam or water heating system.

BOILERS—Horizontal Return Tubular and also Vertical Boilers, various sizes.

ENGINE—14x18 H. S. & G. Engine; fine condition.

CRUSHER—24x24 Roll Coal Crusher.

SPIKES—15 tons Standard Second-Hand Spikes.

Write us for anything you want.

RELIANCE EQUIPMENT CO., MOBILE, ALA.

Steam Shovels and Dump Car Frames

FOR SALE

At Nichola, Florida

2—Vulcan Class "E" Steam Shovels; in good condition.

30—Continental Dump Car Frames, with axles and wheels.

PHOSPHATE MINING COMPANY

55 John Street New York, N. Y.

AIR COMPRESSORS

AND TANKS

Steel Derrick Car, Derricks, Dredge Buckets, Engines and Pumps.

A. B. CLARK COMPANY

225 Fifth Avenue NEW YORK

TRUCK  
FOR SALE

One 5 1/2-ton Truck, automatic dump body.

Practically new. Immediate delivery. Inspection Sioux City.

L. G. EVERIST, Inc. IOWA

LANE'S LIST

165 H. P. Twin Cylinder Miller Improved Gas Engine.

50 H. P. Foss Gas Engine.

8 1/2-in. Thomas D. C. D. D. Chain Drive.

Two-Speed Skeleton Steam Hoist.

3/4-in. Smith Mixer on Skids, steam engine only.

10 H. P. A. C. Motor, 220 Volts.

280-lb. Drop Hammer and Pile Cap.

50-ft. Steel, 2-Section Steam Shovel Boom for clam shell work.

Locomotives, Cars, Rail, Track, Crushers, Boilers, Pipe, Cable, etc.

T. J. LANE EQUIPMENT CO.

14 BUSHNELL BLDG. SPRINGFIELD, OHIO

### EQUIPMENT FOR SALE

1—Cummer Asphalt Plant.

1—Five-ton Tandem Kelly Springfield Roller.

1—Ten-ton Tandem Kelly Springfield Roller.

1—Ten-ton Macadam Kelly Springfield Roller.

1—Smith-Valle Duplex Pump 20x18, steam, 10x18 water.

15,000 ft. 2" Wrought-Steel Pipe.

6—Five-ton Pierce Arrow Automatic Pump Trucks.

12—Wagons, Watson Automatic Dump.

2—27' Foote Concrete Mixers.

1—72' Boom Stiff-Leg Derrick, Industrial Irons.

1—18' Swing American Quick-change Lathe.

1—Cincinnati Plain Milling Machine.

1—Planer.

1—80-lb. Boyer Air Hammer.

1—40-lb. Boyer Air Hammer.

1—6x12 Air Compressor.

1—Electric Drill.

Reamers.

Chucks.

1—8" Morris Sand and Gravel Pumping Outfit, complete.

1—115 H. P. Oil Engine.

Power Hoists.

Stretcher and Discharge Lines.

Complete Screen and Steel Overhead Hoists.

1—Barge.

L. G. EVERIST, Inc. Sioux City, Iowa

STEAM ROLLERS

One 10-ton Avelling-Porter Three-Wheel Single-Cylinder Road Roller in first-class condition.

One 10-ton Harrisburg Three-Wheel Tandem Steam Roller in first-class condition.

One 7-ton Universal Tandem Steam Roller, hand steer.

One 8-ton Kelly-Springfield Tandem Steam Roller, hand steer, thoroughly overhauled.

Two 5-ton Buffalo-Pitts Tandem Steam Rollers, almost new.

One 5-ton Erie Tandem Steam Roller, poor steer.

One 5-ton Iroquois Tandem Steam Roller, power steer.

WIRE PHONE WRITE

Contractors' Machinery & Supply Co.

509-11 Wabash Bldg. PITTSBURGH, PA.

DERRICK CAR

FOR SALE

We have specially built Unloading Outfit, mounted on 33' standard railway flat car.

With swinging attachment, Am. H. & D. with timber A frame derrick, with 30' boom, 5/4-yd. Kiesler clam-shell bucket cables; hand crab, for raising boom. Not self-propelling.

Good condition. Offered subject prior sale.

Immediate shipment, Central Wisconsin.

Price, complete, \$2000.

KERN-HUNTER CO.

208 Wells Street

MILWAUKEE

## Repaired Contractors' Equipment

### STEAM SHOVELS

- 1—Bucyrus 35-B, on caterpillar traction, full revolving, with 1½-yard and 1¼-yard dipper.
- 1—Bucyrus 70-C, 2½-yard dipper.
- 1—Marion 70, 2½-yard dipper.
- 1—Erie Type "B," full revolving, ¾-yard dipper.

### LOCOMOTIVES

- 2—18-ton 10x16" Dinkeys, 36" gauge.
- 2—15-ton 9x14" Dinkeys, 36" gauge.
- 2—10-ton 7x12" Dinkeys, 36" gauge.

### CARS

- 20—12-yard Western, air-dump, standard gauge.
- 175—4-yard Western, 36" gauge, wood and steel beam.
- 1—Western Spreader, hand operated, 36" gauge.

### HOISTS, DERRICKS, BOILERS, CONCRETE MIXERS, Etc.

We have a large stock of thoroughly repaired construction equipment of all kinds ready for immediate shipment.

## H. Kleinhans Company

Union Arcade  
PITTSBURGH, PA.

### Special Attention!

## Locomotive Cranes, Cars, Steam Shovels, Locomotives, Etc.

### FOR PRACTICALLY IMMEDIATE SHIPMENT

- 1—10-ton, 8-WHEEL INDUSTRIAL WORKS LOCOMOTIVE CRANE. Equipped with 50-ft. Boom, etc. This is a splendid large capacity Locomotive Crane, used so very little it is hardly worth mentioning. Just like new. IMMEDIATE SHIPMENT.
- 1—25-ton, 8-WHEEL INDUSTRIAL WORKS LOCOMOTIVE CRANE. Equipped with 50-ft. Boom, etc. This is a very popular type Crane, ACTUALLY USED LESS THAN 60 DAYS, and absolutely just like new. IMMEDIATE SHIPMENT.
- 1—15-ton, 8-WHEEL BROWN HOIST LOCOMOTIVE CRANE. Equipped with 50-ft. Radius Boom, etc. This is also a well-known make and type of Crane, used very little in actual service. Finest kind condition. PROMPT SHIPMENT right out of our Chicago works.
- 1—15-ton, 4-WHEEL BROWNING LOCOMOTIVE CRANE. Equipped with 40-ft. Radius Boom, etc. This Crane little used and coming out of our Chicago shops in A-1 condition for PROMPT SHIPMENT.
- 1—10-ton, 4-WHEEL INDUSTRIAL WORKS LOCOMOTIVE CRANE. Equipped with 40-ft. Radius Boom, etc. Very fine machine, coming right out of the shops. PROMPT SHIPMENT.
- Several CLAM SHELL BUCKETS, various capacities from one-half cubic yard to two cubic yards—Hayward, Browning, Brown Hoist and McMyler manufacture. Some of these Clam Shell Buckets have been actually used less than thirty days. Absolutely good as new. IMMEDIATE SHIPMENTS.
- 1—70 C, BUCYRUS STEAM SHOVEL, strictly modern machine, with extra long Boom, 38 ft. in length, and extra long Dipper Arm, 56 ft. in length, ESPECIALLY ADAPTED FOR COAL STRIPPING. Mounted on Standard-Gauge, 8-Wheel Railroad Trucks; 2 cubic yd. Dipper, etc. This STEAM SHOVEL has been used so little it is hardly worth mentioning. Absolutely just like new. All ready for IMMEDIATE shipment and service.
- 15—80,000 capacity, 36-ft. GONDOLA RAILROAD CARS, M. C. B. and I. C. C. equipment, coming right out of our works. PROMPT SHIPMENTS. These cars are especially desirable purchases.
- 2—STANDARD GAUGE COMBINATION PASSENGER AND BAGGAGE COACHES. For PROMPT SHIPMENT right out of our Chicago works.
- 1—10-ton, 15x24, Standard-Gauge, Four-Driver BALDWIN SADDLE-TANK SWITCHING LOCOMOTIVE, for PROMPT delivery right out of our shops. This very fine Locomotive, PROMPT shipment.

ALSO CONSIDERABLE OTHER EQUIPMENT. ALL QUOTATIONS SUBJECT TO PRIOR SALES.  
PLEASE TELEGRAPH, TELEPHONE OR WRITE US YOUR REQUIREMENTS.

## A. C. TORBERT

Locomotive Cranes, Cars, Locomotives, Steam Shovels, Etc.

Continental and Commercial Bank Building  
SHOPS AND STORAGE YARDS AT CHICAGO

CHICAGO, ILLINOIS

### HOISTING ENGINES

- 1—Lidgerwood, 14x18, D. C., three tandem drum, suitable for cableway.
- 1—Shannon, 7½x10, D. C., D. D., with boiler.
- 1—Mundy, 6½x10, D. C., D. D., skeleton.
- 2—Mundy, 6½x10, D. C., D. D., with boilers.
- 1—National, 5½x10, D. C., D. D., with boiler.
- 1—Mundy, 8x12, double cylinder, three tandem drums, butt strapped, triple riveted, boiler, independent Mead Morrison 4½x6 swinging engine, equally as good as new.

### STATIONARY ENGINE

- 1—350 H. P. Green Slide Valve Engine, equally as good as new, size 22" x 48" wheels 10x32".

### BOILERS

- 3—American-built, Scotch type marine boilers, 12'6" dia. by 20' long, double end, three corrugated furnaces each end, 100 lbs. steam.
- 1—350 H. P., horizontal return tubular Boiler, 125 lbs. steam.

### ANCHORS

- 10—New mushroom Anchors, 5000 lbs. each.

### PIPE

- 6000 ft., strictly first-class 6" wrot-steel Pipe, equally as good as new.
- 700 ft. strictly first-class 20" dia. steel-riveted flange Pipe, lengths 20' each.
- 400 ft., 24" dia., 30' lengths, equally as good as new.

### STEAM SHOVELS

- 1—65-ton Bucyrus, 2½-yd. dipper, standard gauge.
- 1—No. 1 Thew Traction Steam Shovel, ½-yd. dipper.

### CENTRIFUGAL PUMPS

- 1—Morris No. 12, 14" suction, 12" discharge, direct connected to horizontal engine, 18x10, 4500 gallons capacity per minute.
- 34—Standard gauge car trucks, four wheel; wheels 34" dia., in first-class second-hand condition.

### RAILS

- We have a large tonnage of all weight rails from 20 to 100 lb. relayers; pass any inspection.

## Henry A. Hitner's Sons Co.

Station K. Philadelphia, Pa.





# OLIVER DUMP & SPREADER CARS

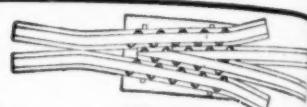
THE WM. J. OLIVER MFG. CO.

Only AIR DUMP CAR under absolute control of Operator. Can be brought back to upright position, after passing center of gravity, before entire contents of car have been unloaded. This admits of equal distribution of material on both sides of track. Write.

KNOXVILLE, TENN.



Portable and Industrial Track  
THE CINCINNATI FROG & SWITCH CO.  
CINCINNATI, OHIO



Frogs, Switches, Crossings, Switch Stands, Rail Braces, Etc.

THE AMERICAN FROG AND SWITCH CO., Hamilton, Ohio  
FROGS, SWITCHES, SWITCH STANDS, RAIL BRACES



SOUTHERN IRON & METAL COMPANY

P. O. Box No. 1136 Jacksonville, Florida

New and Relaying Rails  
Iron and Steel Scraps  
PIPE, New and Second Hand

New and Rebuilt Machinery  
Metals of All Kinds  
Locomotives

THE WEIR FROG CO.  
Manufacturers of  
Frogs, Switches, Crossings, Rail Braces, etc.  
CINCINNATI, O.  
Manufacturers of Balkwill Articulated Cast Manganese Crossings

NEW STEEL RAILS, STEEL TIES

12 lbs. to 60 lbs. per yard

Concrete Bars, Rounds, Squares, and Twisted Squares

Light Steel Angles

SWEET'S STEEL COMPANY  
Mill and General Offices, WILLIAMSPORT, PA.

KILBY FROG & SWITCH COMPANY  
BIRMINGHAM, ALABAMA  
Manufacturers of  
FROGS, SWITCHES, CROSSINGS, Etc.

E. H. WILSON & COMPANY

COMMERCIAL TRUST BUILDING  
PHILADELPHIA

IRON AND STEEL AND

RAILWAY EQUIPMENT

THEY WATCHED IT DUMP



This Type of Wagon

The Western  
Dump Wagon

practically standard throughout the United States, nearly "caused a riot" in France when first it appeared back of the lines. Many hundreds

of them now are in active service there building roads and railroads.

The Western Dump Wagon combines lightness with strength and is easy on stock.

Using a Western Standard Elevating Grader and Wagon Loader, nearly two wagons per minute have been loaded and dumped throughout a ten-hour period.

Send for illustrated catalog.

WESTERN WHEELED SCRAPER COMPANY  
Earth and Stone Moving Machinery  
AURORA, ILLINOIS

Only AIR DUMP CAR under absolute control of Operator. Can be brought back to upright position, after passing center of gravity, before entire contents of car have been unloaded. This admits of equal distribution of material on both sides of track. Write.



Immediate delivery this 78-ton three truck Heisler, splendid condition, built 1912, located in West Virginia.

Two fifty ton Shays built 1909 and 1913, splendid condition, West Virginia delivery.

Three truck 70 ton Climax splendid condition located Atlanta.

Wire us for particulars.

Have other rod and geared type locomotives located Atlanta which have been thoroughly rebuilt in our shops.

SOUTHERN IRON & EQUIPMENT COMPANY  
ATLANTA, GEORGIA

Get This List

It contains full description, location and price of over 1,000 items.

Steam Shovels  
Locomotives  
Cars  
Derricks  
Engines  
Locomotive Cranes  
Pumps  
Crushers  
Drills  
Electrical Equipment  
Boilers  
Steam and  
Electric Hoists  
Dredges  
Traction Engines  
Buckets

EMPIRE ENGINEERING COMPANY, Inc.  
Contractors — Engineers  
6 Church St., New York City

NOW READY FOR IMMEDIATE SHIPMENT

REVOLVING SHOVEL

Model 28 Marion on traction wheels, excellent condition, new in spring of 1917.

LOCOMOTIVES

1—Baldwin, 30-ton, standard gauge, type 0-4-0, saddle tank.  
1—60-ton American 6-wheel Switcher; driving wheels 44" diameter; carries 150 lbs. steam; weight all on drivers; excellent condition; just out of shop.  
1—60-ton Type 4-6-0 Rhode Island Switcher; Southern delivery; big bargain; carries 150 lbs. steam pressure.

LOCOMOTIVE CRANES

1—"American" Railroad Ditcher. "Twenty Machines in One." Locomotive Crane work, shipbuilding, log loading, steam-shovel work, etc.  
1—Browning 10-ton 4-wheel 45-ft. boom, bucket operating drums.

BUCKETS

2-1½-yd. Single Line Clamshell Buckets.  
1-¾-yd. capacity Orange Peel Bucket.  
1-1¼-yd. Clamshell Bucket.

CABLEWAY ENGINE

1—Flory 10x12 D. C. Double Tandem Drum Engine; drums 40" dia. x 40" face; levers banked in quadrant.

MINE HOISTS

1—Nx10 Flory, double drum, double cylinder; drums side by side and keyed to shaft; link motion.  
Lambert, 10½x12 double cylinder, single drum, 38-in. dia., 24-in. face; drum grooved; will take up 7/8-in. cable; drum flanges 8 in. deep; link motion.

BOILERS

1—Marine Type, 150 H. P. (portable).  
1—Marine Type 100 H. P. Freeman Internal Fired Portable Boiler; diameter 8 in.; length over all 18 ft.; 125-lb. pressure.  
1—60 H. P. Locomotive Type Portable Boiler and Engine, mounted on iron wheels, with engine mounted on top of boiler.

DERRICK HOISTS

1—60 H. P. Puget Sound Heavy-Duty Double-Cylinder Double-Drum Hoist with 60-in. diam. butt-strapped boilers. Good log loader or heavy derrick engine.  
1—70x10 American Double-Cylinder Double-Drum, with boiler.  
2—Byers 16 H. P. Double Cylinders, double drum, equipped with boilers and swing gears.  
2—7x10 Lidgerwood Double Cylinder, double drum, skeleton.  
1—9x10 Lidgerwood, double cylinder, double drum with special boiler, all steel gears, engine built for heavy duty.

AIR COMPRESSOR

1—Sullivan Straight Line, 2-stage, Class W B-2, capacity 1160 ft., 100 lbs. pressure, speed 110 R. P. M.

CONCRETE MIXERS

1—Standard 10 cu. ft., gasoline driven, mounted on trucks, complete, with loading platform.

1—No. 4 Smith with steam engine on skids.

1—Lot Concrete Spouting, size 14½ in. wide, 9¾ in. deep; hopper connections.

CARS

12—Flat Cars, 50,000-lb. capacity, M. C. B., journals 4x7.

4—1-yd. capacity "V"-shaped Steel Two-Way Dump, 30-in. gauge.

F. MAYER  
1601 Monadnock Bldg.

CHICAGO, ILL.

# Southern Shops Seeking Contract Work

Castings, Stampings, forgings, Machine Work, Metal Specialties

IN ADDITION TO HANDLING LOCAL JOBS OF THIS KIND, THESE FIRMS  
ARE OPEN FOR SPECIAL ORDERS FOR OUTSIDE CONTRACT WORK

**Bosworth-Ard Machine & Foundry Co.**  
ANNISTON, ALA.

## Grey Iron Castings and Machine Work

GEARS A SPECIALTY

Foundry Capacity 75,000 Pounds Daily

### CASTINGS

Machine Work, Ship Parts, Bending Slabs  
Gear Cutting, can be furnished  
without delay

DROP US A LINE

**AMERICAN-BLAKESLEE MFG. CO.**  
BIRMINGHAM, ALA.

WE ARE FULLY EQUIPPED TO DO  
All Kinds of Heavy Machine Work  
AND  
FOUNDRY CASTINGS

In our plant we are able to take care of large or small orders  
and for immediate delivery

Address

**HARDIE-TYNES MFG. CO.**  
BIRMINGHAM, ALA.

### STRUCTURAL AND ORNAMENTAL IRON GRAY IRON CASTINGS

FROM 1 TO 10,000 POUNDS

Write for Estimates

**ROANOKE IRON & BRIDGE WORKS, Inc.** Roanoke, Va.

WE MAKE A SPECIALTY OF  
**High Grade Grey Iron and Semi-Steel Castings**  
Also All Kinds of Machine Work. Special Machines Made  
to Order. Prices Will Suit You. Prompt Service.  
Salem Foundry & Machine Works Salem, Va.

### ELECTRIC STEEL CASTINGS

From 1 to 500 lbs.

Soft Steel and Alloy Steel Castings

**Warren Steel Casting Co.** St. Louis, Mo.

### GRAY IRON and Semi-Steel Castings MACHINE WORK

Raleigh Iron Works Company, Trustees, RALEIGH, N. C.

### GRAY IRON CASTINGS

From 1 to 1000 Pounds  
Machine Tool Castings a Specialty  
**SOUTHERN FOUNDRY CO.** OWENSBORO, KY.

### MACHINE WORK

We are well equipped to do machine  
work. Lathes 14" to 32", planer, shaper,  
boring mill. Convenient foundry. Com-  
plete machines or parts. Send blueprints  
for estimates.

KENTUCKY ELECTRICAL CO.  
OWENSBORO, KY.



### CASTINGS

Gray Iron and Semi-Steel  
Well-Equipped  
Foundry and Machine Shop  
Established 72 Years  
**JANNEY & CO.**  
MONTGOMERY, ALA.

Owing to the curtailment  
of clay working plants we  
are in position to take con-  
tracts for other than clay  
working machinery.

**J. C. Steele & Sons**  
STATESVILLE, N. C.

### IF YOU WANT

To get in  
touch with  
some Extra  
Contract Work

ADVERTISE  
IN THE

Southern Shops Seeking Contract  
Work Department

Rates on Application

**MANUFACTURERS RECORD**  
BALTIMORE, MD.

### SPECIALTIES

In connection with our general engineering  
business, we operate a JOB SHOP, employing  
high-grade mechanics, and having the  
advantage of skilled engineering advice.

We thus take contract work; particularly the  
designing and construction of specialties  
and other work requiring engineering knowl-  
edge, as well as accurate workmanship.  
Write us your needs.

**A. M. Lockett & Co., Ltd.**  
Contracting Mechanical Engineers  
New Orleans Houston, Tex.

### Machine and Foundry Contract Work

#### WANTED

Thoroughly equipped with  
modern machine shops and  
foundry, and can render  
prompt and efficient service.

Also build machinery and  
carry a full line of mill  
supplies.

**STRATTON & BRAGG CO.**  
PETERSBURG, VA.

**Grey Iron Castings**  
Machinery  
Structural and Ornamental  
Castings up to 5 tons  
PATTERNS OF ALL KINDS

**CHATTANOOGA ROOFING &  
FOUNDRY CO.**

CHATTANOOGA, TENN.

### Repair Works

Engines, Boilers, Pumps, Etc.  
Repaired

### Grate Bars

Your inquiries solicited.

**The Strickland Machine Co.**  
RICHMOND, VA.

### GEARS

Making Gears is a specialty  
with us. We have the equip-  
ment and can give you the  
service.

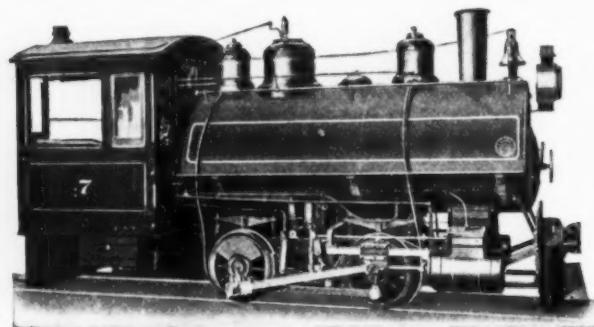
**Columbus Truck & Supply  
Mfg. Co.**

**COLUMBUS** GEORGIA

### Cape Fear Machine Works INCORPORATED

#### GREY IRON CASTINGS

Mill—Railroad—Steamboat Work  
Founders—Boiler Makers  
Machinists  
Railroad and Wharf Facilities  
Wilmington, North Carolina



## BALDWIN LOCOMOTIVES

are built in all types and sizes, from small narrow-gauge engines for industrial and contractors' service to the heaviest class of power for passenger and freight service on trunk lines. Your requirements may be exceptional, but with our experience and facilities we can meet them successfully.

The illustration shows a Baldwin Contractors' Locomotive of 3 feet gauge and 18 tons weight. There is nothing specially remarkable about this machine—except that it represents the best, in design, materials and workmanship, that can be put into a locomotive of this class. It is just the engine you need for rough and strenuous work.

### The Baldwin Locomotive Works PHILADELPHIA, PA., U. S. A.

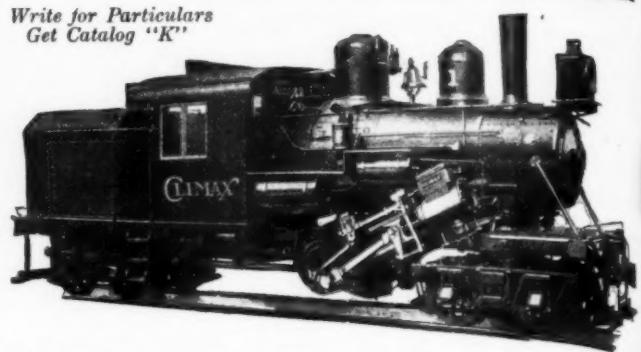
Cable Address, "BALDWIN PHILADELPHIA"

Represented by

F. W. Weston, 120 Broadway, New York, George F. Jones, 407 Travelers Building, N. Y. Richmond, Va.  
C. H. Peterson, 627 Railway Exchange, A. J. Beuter, 312 Northwestern Bank Chicago, Ill. Bldg., Portland, Ore.  
A. S. Goble, 1210 Boatmen's Bank Bldg., Williams, Dimond & Co., 310 Sansome St., St. Louis, Mo. San Francisco, Cal.

## The Only Geared Locomotive Built with an Outside Valve Gear

Write for Particulars  
Get Catalog "K"



CLIMAX MFG. CO. Corry, Pa., U.S.A.

## Porter Locomotives—Light and Heavy

Steam Locomotives—3 to 100 tons—Narrow and Wide Gauges.  
Other Specialties—Fireless Stored Steam Locomotives.  
Two-Stage Compact Economy Compressed Air Locomotives.

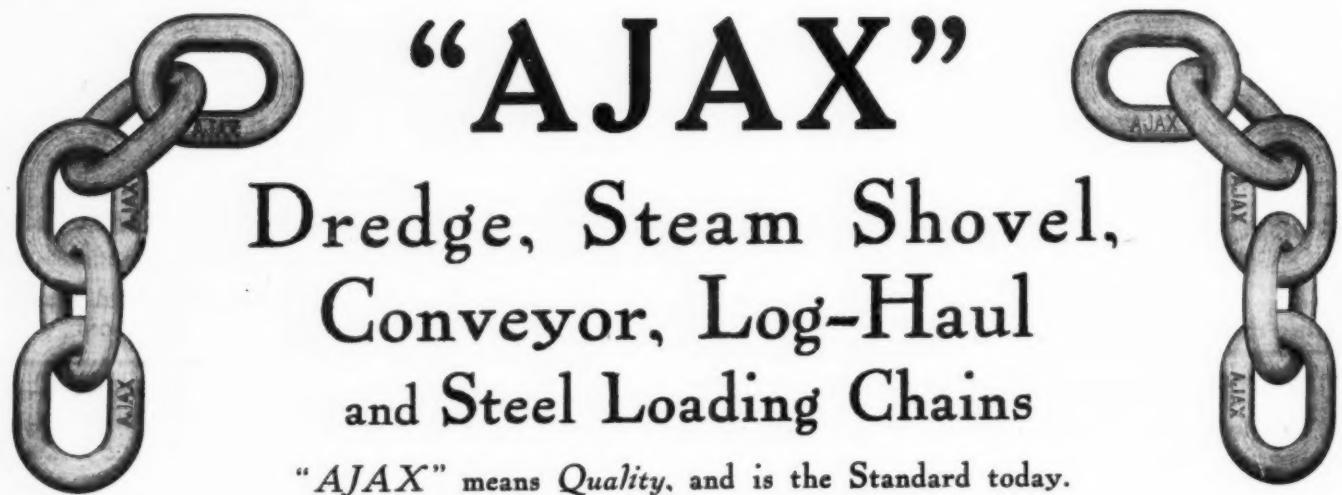


Steam Mine or Tunnel

New Steam Locomotives on hand for immediate or quick delivery, latest designs, 24, 36 and 56½-inch gauges.

TWELFTH EDITION Steam Catalogue, 152 pages, 8½x11, engineering data not elsewhere in print, free to intending purchaser, \$1.00 to others.

H. K. PORTER CO., 1211 Union Bldg., PITTSBURGH, PA.



## "AJAX"

### Dredge, Steam Shovel, Conveyor, Log-Haul and Steel Loading Chains

"AJAX" means Quality, and is the Standard today.

AMERICAN CHAIN COMPANY, Inc.

BRIDGEPORT,



CONN., U. S. A.

Boston Office:  
107 Massachusetts Ave.

Chicago Office:  
529 West 12th Street

San Francisco Office:  
714 St. Clair Building

In Canada—DOMINION CHAIN CO., Ltd., Niagara Falls, Ont.

LARGEST CHAIN MANUFACTURERS IN THE WORLD

Bridgeport, Conn.

Braddock, Pa.

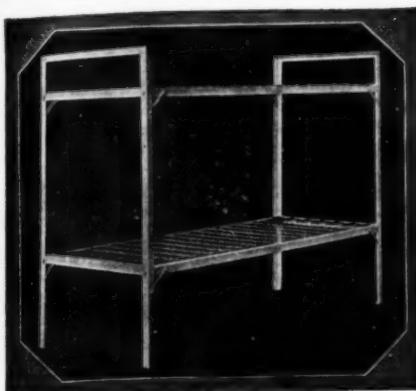
York, Pa.

Factories in  
Carlisle, Pa. Columbus, O.

Mansfield, O.

St. Marys, O.

Marion, Ind.



## You Are Wasting Money Every Time You Use Wooden Bunks

Lumber is expensive. Still you'll build wooden bunks for your men and burn them when the job is completed. This is absolutely a waste of money. Why not use metal bunks that can be carried from job to job and last a lifetime?

## ROMELINK BUNKS FOR CONTRACTORS

Are sanitary, comfortable, durable and will not burn. Used by the U. S. Government and many of the biggest contractors. They will be a big asset to your equipment.

*Write for Illustrations*

**SOUTHERN-ROME COMPANY**  
Branch of  
**ROME METALLIC BEDSTEAD CO.**  
BALTIMORE, MD.

## BECAUSE—



## DYNAMITE

Will Do Your Work Right

is the reason you should use it. We have a variety of grades—they will suit your particular needs, no matter in what manner they are connected with blasting.

Many users have individual blasting problems to solve. To such we offer our consultation services, and we will also make an exhaustive study of your requirements gratis. Then our recommendation of proper grades is at your disposal—whether you take advantage of it or not.

Could you ask for more?

## Aetna Explosives Company

INCORPORATED

120 Broadway

NEW YORK, N. Y.

# WATERBURY

## Wire Rope

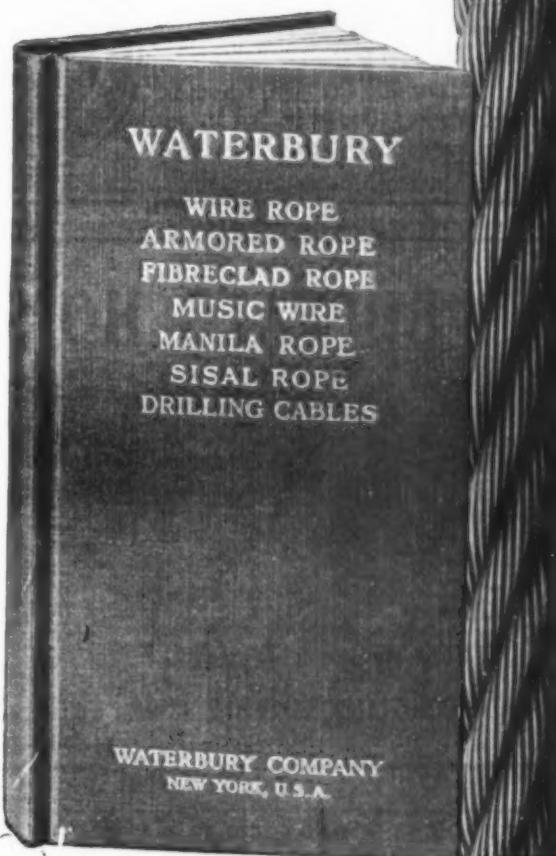
Waterbury is the high-water mark of rope quality. Grades change according to the conditions under which the rope is to be used, but the quality in each respective grade is uniformly of the highest.

For instance, in Standard Hoisting Rope there is Green Strand, the highest grade of Improved Plow Steel, Crucible Cast Steel, Extra Strong Crucible Cast Steel, and Plow Steel.

All of these ropes are extensively used for derricks, dredges, cableways, heavy cranes, wrecking lines, skidders, scrapers, stump pullers, etc.

### CATALOG.

A 220-page Cloth-bound Rope Manual covering all kinds of Rope Wire, Armored Wire, Fiber and Fibreclad, will be mailed free upon request.



## WATERBURY COMPANY

63 PARK ROW, NEW YORK

CHICAGO	1315-1321 W. Congress St.
SAN FRANCISCO	151-161 Main St.
DALLAS, TEXAS	A. T. Powell & Co.
NEW ORLEANS	1018 Maison Blanche Building

2207-W

## STROUDSBURG = QUALITY

We Standardized the 125 Lbs. Pressure Hoisting Engine

### They Use Stroudsburgs

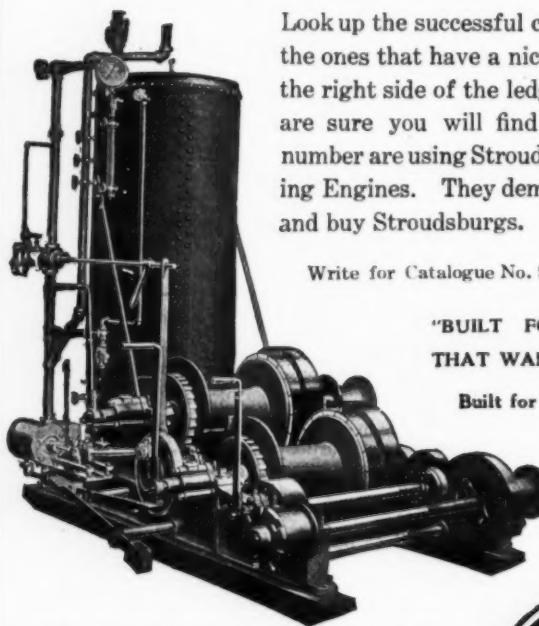
Look up the successful contractors—the ones that have a nice balance on the right side of the ledger—and we are sure you will find that a large number are using Stroudsburg Hoisting Engines. They demand the best and buy Stroudsburgs.

Write for Catalogue No. 9 and full details.

"BUILT FOR THE MAN  
THAT WANTS THE BEST"

Built for every purpose

The  
Up-to-Date  
Contractor's  
Favorite



### STROUDSBURG ENGINE WORKS

Office and Works: No. 64 N. 3rd St.  
STROUDSBURG, PA.



## BUFFALO HOISTS

The kind needed for mines, quarries, harbor and river improvements, contractors' use, etc. Extra large drum shafts, smooth-turned winch heads, independent clutch winches and other special features, resulting from years of study and actual practice.

Full particulars gladly given.

BUFFALO CONTRACTORS PLANT CORP., Buffalo, N. Y.

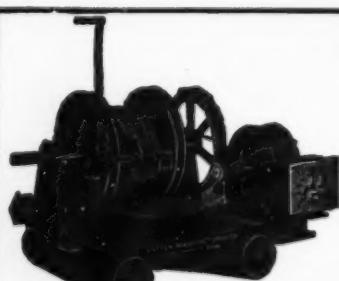
### THE BAY CITY WALKING LAND DREDGE

Suitable for all kinds of ditching, drainage, irrigating and large tile trenches.

Ask for Catalog and Detail Information

BAY CITY DREDGE WORKS

Bay City, Michigan



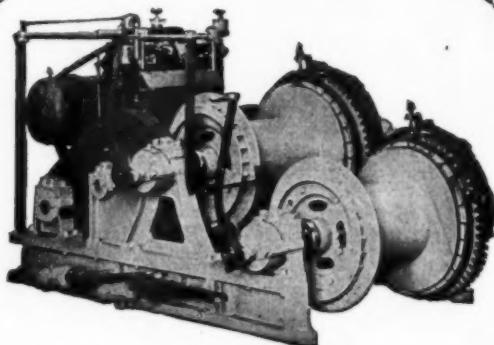
### Patent Double Platform Hoists

Driven by Electric-Motor, Gasoline  
or Steam Engine

Single and Double Drum Hoists

PATTEN MFG. CO.  
CHATTANOOGA, TENN.

Postal Bring Catalogue.



The foremost need of today

## SPEED LIDGERWOOD HOISTS

Steam—Electric—Gasoline

Built in standard lines to cover every hoisting need in contracting, marine, mine and industrial work.

All combine speed in operation with durability in design and construction, insuring continuous service.

CABLEWAYS · DERRICKS · LOG SKIDERS

LIDGERWOOD MFG. CO.

96 Liberty St., New York

Philadelphia, Pittsburg, Chicago, Los Angeles, Seattle  
Woodward, Wight & Co., Ltd., New Orleans.

7712

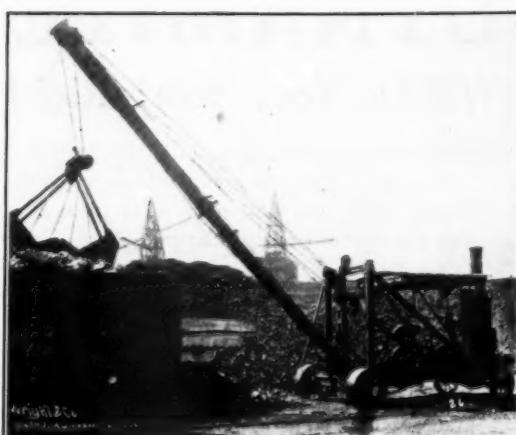
### THE UNLOADING AND STORING

Of Coal

Can Be Economically Performed

With The

## BYERS AUTO-CRANE



Hundreds of industrial plants, shipyards, government contractors, etc., have found this versatile machine of great value for a thousand and one things. Get our Bulletin 1011, and investigate for your work.

THE JOHN F. BYERS MACHINE CO.

240 Sycamore Street

RAVENNA, OHIO

# HERE'S A MACHINE That Will Save You Money Its Name Is "LITTLE TUGGER" Hoist

It is a self-contained hoisting engine that operates on steam or compressed air. Its lifting capacity is a half ton and its drum holds 450 feet of wire rope. You can clamp or bolt it anywhere and run it in any position.

With it you can haul your cars up to your quarry face, hoist drills, drill steel, powder and supplies—you can use it in the mill for placing machinery on foundation, shifting cars for loading—there's no limit to its handy applications.

Think of the man-power that its employment would save.

*Ask for a Copy of Bulletin 4233*

**INGERSOLL - RAND COMPANY**  
11 Broadway 165 Q. Victoria St.  
NEW YORK Offices the World Over LONDON



7813

48-LH

## Westinghouse—National 3VS-23 Air Compressor

Specifications: 3 vertical cylinders. Water jacketed. Direct connected to motor with enclosed herringbone gear and pinion. Automatic control. Governor range, 100-85 pounds. 300 cubic feet free air per minute. 50 H.P. motor. Installation: Worcester Consolidated Street Railway Shops, Worcester, Mass. Duty: Supplies air pressure for pneumatic tools, air hoists, blacksmiths' forges, paint spraying, etc. Ask for Catalogue No. 401 which describes all sizes up to 550 cu.ft. per min. Call on us for free consultation.

OFFICES:  
Atlanta, Ga.  
Boston, Mass.  
Chicago, Ill.  
Columbus, O.  
Denver, Colo.  
Houston, Tex.  
Los Angeles, Cal.  
Mexico City  
New York, N. Y.  
Pittsburgh, Pa.  
San Francisco  
Seattle, Wash.  
St. Louis, Mo.  
St. Paul, Minn.

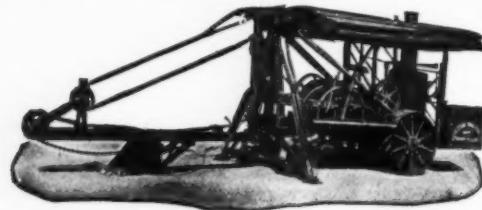
Westinghouse Traction Brake Company  
General Offices and Works, Wilmerding, Pa.

# KEYSTONE

Road Grader  
Bank Dipper  
Ditcher  
Cellar Digger  
Back Filler

5  
in  
1

Don't buy 40 tons of equipment if one Keystone 10-ton Traction Shovel will take care of all your work.



THE machine is sturdily built and will stand up to hard digging in cemented gravel or old macadam. It is unusually light and will move about rapidly on its own power without danger of going through country bridges and culverts. Skinner and Dipper Scoops hold one-half yard. Loads 1½-yard wagon in 1½ minutes. Average daily output 250 to 400 cubic yards. Has dragline ditcher scoop for trenches, cellar digging, back-filling, etc. Ditching capacity 150 to 300 cu. yds. per day. Excavates to a depth of 20 ft.

The eleven-foot horizontal crowding movement and powerful crowding thrust make it more efficient than other machines for shallow grading in hard material.

Saves you money in first cost, operating and moving charge and upkeep.

Write nearest office for catalog, prices and list of nearby owners.

**KEYSTONE DRILLER CO.**  
BEAVER FALLS, PA.

170 Broadway, New York      Monadnock Block, Chicago, Ill  
Joplin, Mo.

We Manufacture also  
KEYSTONE Well Drilling Machines  
DOWNE Deep Well Pumps

# STEAM SHOVELS

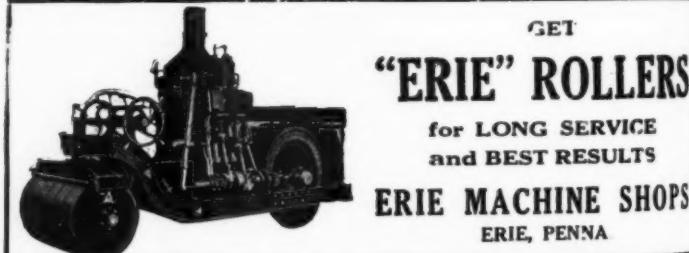
# Thor

Piston Air Drills equipped with Corliss Valves, Roller Bearings, Telescopic Screw Feed and one-piece Connecting Rods; Long Stroke Riveting Hammers made from one solid piece—can't come loose; Chipping Hammers with a single valve of the latest design.—Electric drills.

**INDEPENDENT PNEUMATIC TOOL COMPANY**

Chicago      New York      Pittsburgh      Birmingham      San Francisco      Detroit      Montreal

Time Saving tools  
High in efficiency  
On the job constantly  
Ready for delivery

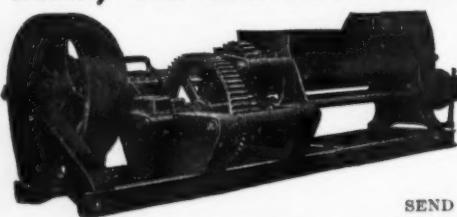


# Roller Bearing Cars and Trucks

OF ALL KINDS, FOR ALL PURPOSES  
SWITCHES, TURNTABLES  
Complete Industrial Railway Equipment  
Write for Catalogue and Prices.  
THE CHASE FOUNDRY & MFG. CO.  
COLUMBUS, OHIO



# Brick, Tile and Fire-Proofing Machinery



E. M. FRESE & COMPANY

SEND FOR CATALOG.  
180 South Street, Galion, Ohio

Large range of sizes and styles. Capacities from the smallest up to 150,000 bricks per day. Complete line of Automatic and Hand Cutters for all kinds of ware.

Pug Mills, Disintegrators, Crushers and Brickyard Supplies.

Manufacturers of six sizes—sixty combinations of power shovels, built of The Standard Machinery Units, equipped with Combination Boom, Skipper Shaft or Horizontal Crowd-Steams, Gasoline, Electric.

The Thew Automatic Shovel Company  
Lorain, Ohio



War has added enormously to transportation requirements.

More improved highways are needed—now.

Thew Shovels are accurate, economical, speedy road-builders.

"Thews are Everywhere"

New York Office:  
30 CHURCH ST.

Mine  
Concrete  
it  
rs  
pany  
ufacturers

# KOEHRING CONCRETE MIXER

The HEAVY DUTY MIXER that is fortified against breakdowns and delays. The Extra Yardage Mixer of high-speed, clean-charging loading skip, liberal drum dimensions and fast discharge. Uniform concrete to the last shovelful of every batch.

Write for catalog.

KOEHRING MACHINE CO.

Milwaukee, Wis.

## A Hoisting and Mixing Plant Combined in One—It's a Jaeger



Think of it—and write Jaeger for full details. Jaeger Mixers everywhere mixing concrete, mortar and plaster, and they are making good—7000 of them. Full details on request—why not write today?

THE JAEGER MACHINE CO.  
115 W. Rich St.  
COLUMBUS, OHIO

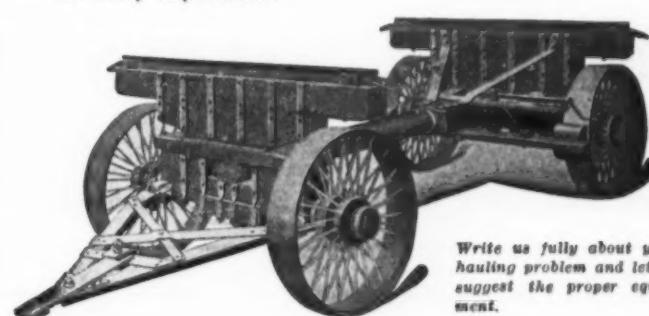
TRAILERS for factory, warehouses and dock use with industrial tractors. Special trucks designed and built to meet individual requirements.

LUMBER HAULING EQUIPMENT—log wagons and carts, lumber buggies, planing mill trucks, and dollies. A truck for every lumber mill requirement.

TRACTION WAGONS for heavy hauling of all kinds, with bed or platform to suit requirements. 5 to 25 tons capacity. Many used in lumbering and mining.

SPECIAL MACHINERY MOUNTINGS for engines, boilers, crushers, mixers and portable machinery of all kinds, designed and built to suit the requirement.

STEEL WHEELS, steel and wood axles, any size and capacity for every requirement.



Write us fully about your hauling problem and let us suggest the proper equipment.

ELECTRIC WHEEL COMPANY  
5 Ohio Street, QUINCY, ILL.

# LOW JOB PRICES

On  
HIGH SPEED  
Equipment

You cannot buy better Equipment for any job you have—why pay more than Boss prices?

"Built of Steel" Equipment sold under "Money Back" Guarantee. Mixers for every purpose—all used sizes—4 to 22 ft. capacities. Hyatt Roller Bearings—all improvements. Hoists, Backfillers, Pumps, Elevators, Concrete Carts, Pavers, Grouters, Etc. Write for new 1918 Catalog—full of Equipment bargains.

The American Cement Machine Co., Inc.  
KEOKUK, IOWA

Write nearest office

W. E. Austin Co., Atlanta, Ga.; Smith-Courtney Co., Richmond, Va.; Roy C. Whayne Co., Louisville, Ky.; Ole K. Olson, New Orleans, La.

Stock carried at above points—also in all other principal cities.



Building Mixers with  
Automatic Power  
Loader—Measur-  
ing Water  
Tank



"Heavy  
Duty"  
Contractors'  
Hoist  
Single or  
Double  
Drum.

Low Chasers that  
save time and labor.  
Guaranteed to mix  
Mortar and Plaster  
as well as Concrete.

## The Southern Purchasing Company

"An Association for the Advancement of Bituminous Streets and Roads in the South"

Cost Estimates Furnished for All Types Asphalt Streets and Bituminous Roads.

Paving Bonds and Special Assessment Securities Marketed.

Directory of Asphalt Chemists and Consulting Engineers Furnished.

*Authorized and Accredited Purchasing Agents for a majority of the principal Asphalt Paving and Bituminous Road Building Contractors in the South.*

ALL SERVICE RENDERED IS FREE

For detailed information, address General Offices

James Bldg.

CHATTANOOGA, TENN.

WE ARE THE LARGEST PRODUCERS OF

## CRUSHED and BROKEN GRANITE

IN THE SOUTH

THE WESTON & BROOKER CO. Columbia, S. C.

## CUMMER ASPHALT PLANTS

All types and sizes.

THE F. D. CUMMER & SON CO. Cleveland, Ohio

FRANK A. FURST,  
President.

JOSEPH J. HOCK,  
Vice-Pres. & Gen'l Mgr.

W. BLADEN LOWMEYER  
Sec. & Treas.

## Sand

Building Concrete Paving

## Washed Gravel

In Car, Scow and Barge Lots

ARUNDEL SAND AND GRAVEL COMPANY  
BALTIMORE, MD.

OFFICE—Pier 2 Pratt St.

WHARVES—Pier 2 Pratt St. and Foot of Falls

## CRUSHED GRANITE

GRANITE SAND JETTY STONE  
RIP-RAP RUBBLE STONE

ALL SIZES SHIPPED PROMPTLY

A. T. SMALL QUARRIES COMPANY  
OFFICES: 353½ THIRD ST., MACON, GA.  
QUARRIES: HOLTON, GA.

## Ore Washing and Screening Machinery

We are the largest Manufacturers in the South of ore washers, top screens or sizing drums, sand screens, picking belts, etc., etc., for washing and screening iron ores, manganese ores, barytes, zinc, ochre, phosphate, etc. Address

DAVIS FOUNDRY & MACHINE WORKS Rome, Ga.



You will do OSGOOD

STEAM SHOVELS - CRANES - DREDGES - ETC.  
Write Us Your Requirements

THE OSGOOD CO., Marion, Ohio

## Why Slag Concrete Lasts

Two powerful agents are responsible for the superior fire resistive and everlasting qualities of blast furnace slag aggregate.

They are, first, the fire of a furnace—which is seldom lower than 2800 degrees—then, the elements.

As the molten slag leaves the furnace in liquid form, it is run into huge ladles, then transferred to the slag bank.

Here it is poured, layer upon layer, and allowed to cool gradually by exposure to the air.

This ageing process removes any objectionable properties not extracted by the furnace heat.

It remains in these banks until chemical analyses recommend its excavation and removal to the crushing and screening plant.

Thus—having been exposed to the fire and time tested by weathering to eliminate all possibilities of disintegration—an aggregate that provides a truly permanent and fire resistive concrete is assured.

## Carnegie Steel Company

464 Frick Building Annex, Pittsburgh, Pa.



Slag Bank  
Carnegie Steel Company, Ohio Works  
Youngstown, Ohio

1164



## Asphalt Filler

Asphaltic Roadway  
Gravel  
Roofing Gravel

AMERICAN BALLAST COMPANY  
1217-1218 Holston National Bank Building Knoxville, Tennessee

### COOK & LAURIE GRAVEL CO.

Large and Prompt Shippers of

### Washed Sand and Graded Gravel

For Concrete, Reinforcing and Roofing Gravel. Railroad Ballast and Road Gravel. Concrete, Brick and Plaster Sand. Special Sand for Sawing Marble.

Office—MONTGOMERY, ALA.

Plant—COOKS, ALA.



Not Experiment But Experience  
dictates the choice of  
"ARMCO" (American Ingot) Iron Culverts  
Accept No Substitutes

TENNESSEE METAL CULVERT COMPANY

Nashville Tennessee

**MINING MACHINERY**  
**MACHINERY SAW MILLS**  
**ENGINES—BOILERS**  
STRUCTURAL STEEL—CASTINGS

**The Mecklenburg Iron Works**  
Charlotte, N. C.

M. I. W.

M. I. W.

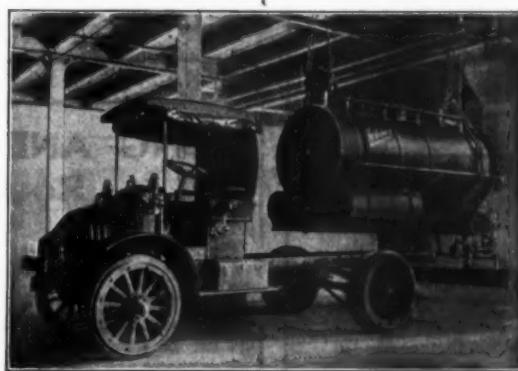


## ROAD OILING EQUIPMENT

Detachable

Demountable

Dependable



Method of Demounting Oiling Tank and Attachments

The tank and entire oiling outfit can be removed from the truck when oiling is finished, and the truck used for other purposes. Your truck need never be idle.

The tank is mounted on a separate frame. Removing 10 bolts disconnects it from the frame of the truck. The advantage of the outfit will readily appeal to progressive men.

**Kinney Manufacturing Co., Boston, Mass.**

NEW YORK PHILADELPHIA KANSAS CITY CHICAGO SAN FRANCISCO

Get acquainted with the Kinney Line for Road Builders, Contractors, Municipalities

**CRUSHERS**

For Limestone in Cement, Lime and Agricultural plants; for Gypsum ahead of the Dryers; for Coal, either for coke oven, stoker, chain grates or industrial purposes; for Shale in brickyards; for Bones, either for case-hardening, glue or other purposes; for Shells for poultry feed and roofing purposes, and for many other materials which it is necessary to crush.

**GRINDERS**

For Limestone, Lime and Gypsum; for Coal ahead for finishing mills; for Clay in brick and terra-cotta plants; for Asphalt, Sand, etc.; for Tannage, Bone and all fertilizer materials; Oilcakes in Linseed and Cottonseed plants; for Nitre, Salt and other chemicals.

20	20-A	20-B	20-C
Limestone	Shale	Tankage	Oil Cake
Lime	Clay	Bone	Linseed
Gypsum	Asphalt	Shells	Cotton Seed
Coal	Sand	Poultry Food	Castor, Nitre
Ochres	All Clay	and all	Salt Cake
Dry Colors	Material	Fertilizer	Soy Bean
		Material	Copra, Etc.

**WILLIAMS PATENT**

**SPECIAL**  
Soap Powder  
Paper Stock and all Chemicals

**PULVERIZERS**  
For all soft materials requiring reduction to a fine degree, such as Ochres, Colors, Soap Powder, Coal, Lime, Lime, Gypsum, etc.

**SHREDDERS**

For Wood Pulp, Rags, etc., in paper and pulp mills; Bark, Logwood, Dyewood, etc., in tanning, extract and dye plants; Alfalfa, Hay, Herbage and Cereals of all kinds; Licorice Root and all fibrous material.

In short, we manufacture machines for every purpose for which CRUSHING, GRINDING, PULVERIZING AND SHREDDING MACHINERY is used for. To facilitate sending of proper literature we have divided the various materials in seven catalogs. When requesting catalog be sure to specify number as per table.

20-D	20-E	20-F	20-G
Stock Food Cereals Alfalfa and all By-Products from Flour Mills	Coal Crushers for Coke Ovens Gas Plants and all Industrial Plants	Shredders Bark, Chips Wood Pulp Licorice Root and all Fibrous Material	Williams- Hickman System of Fine Grad- ing and Separation

**THE WILLIAMS PATENT CRUSHER & PULVERIZER COMPANY**

PLANT—ST. LOUIS, MO.

1st Nat'l Bank Bldg., DENVER, CO.

General Sales Dept.—37 W. Van Buren St., CHICAGO

67 Second St., SAN FRANCISCO, CAL.

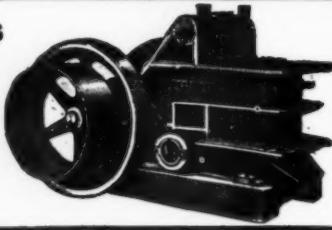
**Reliance Crushers**

Are fully described in our  
new CATALOG, which we send  
**FREE**

Universal Road Machinery Co.

KINGSTON, N. Y.

H. H. MEYER CO., Baltimore, Md.

**Buchanan All-Steel Crusher (Type "C")**

For Quarries and Mines—24 Sizes

Receiving capacity 24" x 36" to 60" x 84"  
Capacity from 100 to 450 tons per hour.  
Crushing Plants complete in all details.

C. G. BUCHANAN CO., Inc. 90 West St. New York, N. Y.

**PULVERIZED COAL**

must be properly prepared in order that the best results are obtained in the furnaces.

**RUGGLES-COLES DRYERS**

are used by large majority of the pulverized coal plants in the world because they have procured the results desired. With over 20 years' experience in building coal dryers, we are in the best position to aid you in this field.

**"Built to Dry at the Lowest Ultimate Cost"**

**RUGGLES-COLES ENGINEERING CO.**

Hudson Terminal  
NEW YORK

McCormick Building  
CHICAGO

Works: YORK, PA.

**The Fuller-Lehigh Pulverizer Mill**  
A Complete Self-Contained Grinding Unit

The Most Economical Mill for Producing  
Agricultural Limestone,  
Ground Phosphate Rock,  
Powdered Coal for Heating  
Industrial Furnaces.

Reduces lump material to 20, 40, 60, 80, 100  
or 200 mesh without requiring any outside  
accessory equipment.

Descriptive Catalogue Upon Request.

**FULLER-LEHIGH COMPANY**  
Successors to Lehigh Car, Wheel & Axle Works

Main Office and Works: Fullerton, Pa., U. S. A.

Branch Offices: New York, N. Y., 50 Church Street

Chicago, Ill. McCormick Building

**DRYERS—CALCINERS**

20 Years' Experience Desiccating

Coal, Ores, Clay, Salts, Grain, Cotton Seed  
and Similar Materials

has enabled us to develop types suited to any purpose  
L. R. CHRISTIE COMPANY  
307 Fourth Avenue

PITTSBURGH, PA.

Automatic  
Improved  
For All Materials.

**DRYERS**

Economical—Efficient  
Great Capacity  
American Process Co.  
68 William St.  
New York

**A BOOK about MACHINERY FREE**  
for GRINDING and SEPARATING

It fully catalogues the Raymond Pulverizing and Air Separating System, yet it is a good deal more than a catalogue, and is full of information valuable to any company which reduces any material to powder. Ask for a copy.

RAYMOND BROS. IMPACT PULVERIZE COMPANY  
1304 North Branch Street, Chicago, Ill.  
Western Representative The Dry Milling Engineering Co., 204 Boston Bldg., Denver.

**Indirect Heat ROTARY DRYERS**

Especially suitable for drying all kinds of GRANULAR MATERIAL.

HERSEY MANUFACTURING CO.,

South Boston, Mass.

**Complete Plants for Washing and Preparing  
Hematite Ores and Phosphate Rock**

WASHERS, Wood or Steel Logs, ORE JIGS for Hard Service, ELEVATORS,  
All Steel, CONVEYORS, All Steel, REVOLVING SCREENS of All Kinds

CATALOGUE FOR THE ASKING

McLANAHAN-STONE MACHINE CO.

HOLLIDAYSBURG, PA.

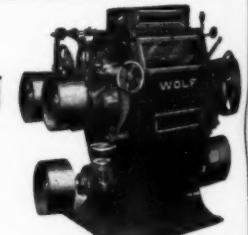
**A. S. BACON & SONS**  
**LONG AND SHORT LEAF PINE**  
**Rough and Dressed**  
**SAVANNAH, GA.**

Wire, Telephone or Write Us Your Needs

**THE RECONSTRUCTION**

A triumph in the milling industry surely awaits the keen business man. Seize the opportunity now and install a Wolf Mill. Reap the enormous profits during the Reconstruction period. The Nation's Roller Mill will supply the demand with unerring accuracy.

**THE WOLF COMPANY**  
Chambersburg, Pa., U. S. A.



"Builders of Complete  
Flour, Corn, Cereal and  
Feed Mill Machinery."

# Here is Perforated Metal with a Reputation

There is quality workmanship in every inch of it

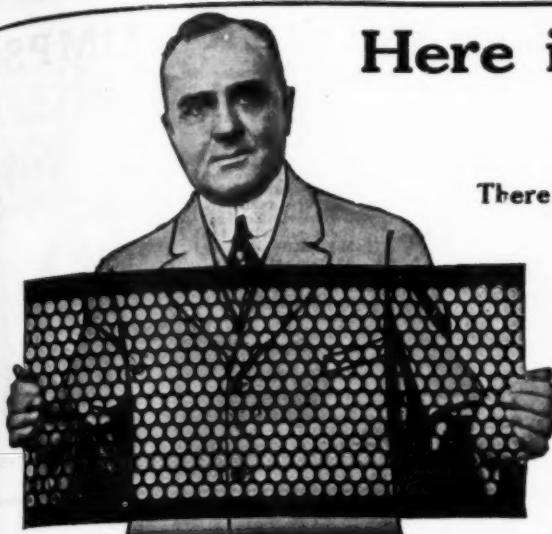
## Perforated Steel, Zinc, Copper, Brass, Aluminum

For use in Cotton Seed Oil Mills, Sugar Houses, Rice Mills, Textile Mills, Paper and Pulp Mills, Etc. Sheets and Plates suitably perforated for Irrigation Wells for screening and grading all products including Coal, Ore, Stone, Cement, Clay, Shale, Gravel and Sand

**The Harrington & King Perforating Co.**

619 N. Union Avenue, Chicago, Ills.

New York Office, 114 Liberty Street



### Perforated Metal Screens

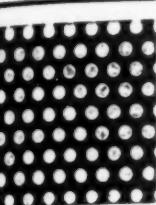
For Coal, Coke, Ore and Rock

ALSO FOR

Cotton Seed Oil Mills and Phosphate Mines  
Elevator Buckets (Plain and Perforated)  
Stacks and Tanks

HENDRICK MFG. CO. CARBONDALE, PA.

New York Office, 30 Church St.



### PERFORATED METALS HEADQUARTERS

Cotton Seed Oil Work A Specialty

Send for Samples

ERDLE PERFORATING COMPANY. Rochester, N. Y.

### CREOSOTE WORKS TREATING PLANT

PENSACOLA, FLA.

PAVING BLOCKS, BRIDGE TIMBERS, CROSS  
TIES, CROSS ARMS, PILING AND POLES

SOUTHERN PAVING CONSTRUCTION CO., GENERAL OFFICE: CHATTANOOGA, TENN.

### CREOSOTED MATERIALS CO., INC.

501 QUEEN & CRESCENT BLDG.

NEW ORLEANS, LA.

DOMESTIC

EXPORT

### AMERICAN CREOSOTE WORKS, NEW ORLEANS, LA.

STATION B

(INCORPORATED)

Creosoted Cross-Arms, Lumber, Paving Blocks, Piles, Poles and Ties  
Private free wharf for ocean vessels Capacity 100 million feet board measure  
at New Orleans. annually.

Western Union and A. B. C. 5th Edition Codes.

Plant at New Orleans, La. Plant at Louisville, Miss.

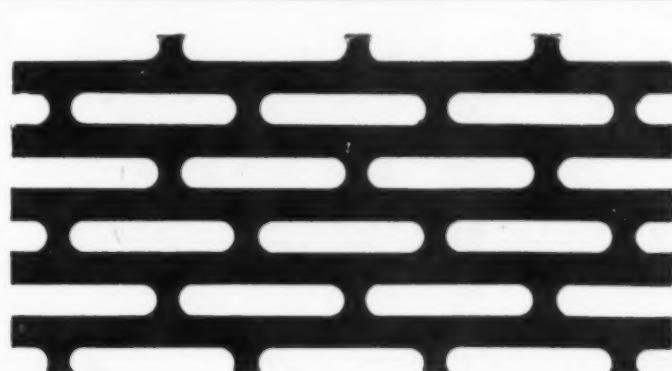


### SOUTHERN WOOD PRESERVING CO.

Creosoted Conduit, Cross Arms, Cross Ties  
Poles, Piling and Timber

CHICAGO SALES OFFICE  
208 So. La Salle St., Room 623

ATLANTA



## PERFORATED METALS

When you want any kind of perforated metal, buy from an old reliable house, one whose products have been used for years with entire satisfaction in every part of the country. We have been supplying all kinds of perforated metals for over 40 years, and this experience coupled with expert workmen and modern machinery enable us to promptly meet all the requirements in our line

*Our new illustrated catalogue will interest  
every user of perforated metal.*

### CHARLES MUNDT & SONS

490 Johnston Ave

Jersey City, N. J.

## FOR THE PREVENTION OF SAP-STAIN OR BLUING OF LUMBER

WE RECOMMEND OUR

# ZENITH BRAND BI CARBONATE SODA

THE COST IS NOMINAL. NO EXPENSE FOR KILNS. NO FIRE RISK.

WRITE FOR PRICES, FREIGHT AND FULL PARTICULARS.

HIGHEST TEST GUARANTEED.

CHURCH & DWIGHT CO. MANUFACTURERS, 27 CEDAR ST. NEW YORK.  
ESTABLISHED OVER 70 YEARS.



## LEFFEL TURBINE WATER WHEELS

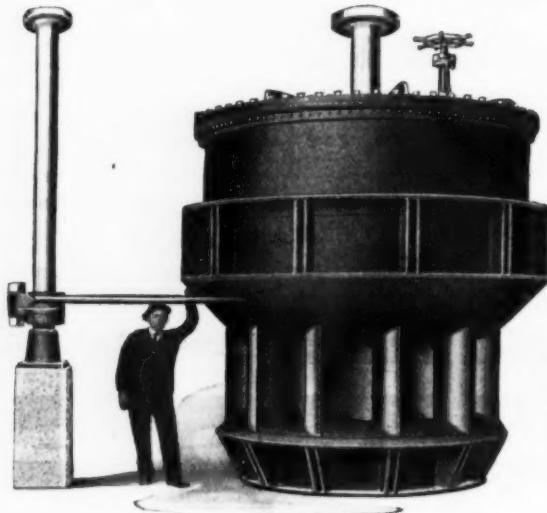
VERTICAL AND HORIZONTAL DESIGNS

High Speed, High Horse Power, High Efficiency

Holyoke Test No. 2363

VERTICAL TYPE Z TURBINE

Per Cent Gateage	Water Head	Minute Revolutions	Minute Cubic Feet	Actual Horse Power	Per Cent. Efficiency
1.00	16 ft.	200	11,150	282.50	83.50
.89	16 ft.	200	10,500	277.75	87.51
.80	16 ft.	200	9,730	267.20	90.70
.75	16 ft.	200	9,245	249.00	89.10
.70	16 ft.	200	8,705	230.00	87.35
.60	16 ft.	200	7,525	182.40	80.30



WRITE FOR BULLETIN 54

THE JAMES LEFFEL & CO., Springfield, Ohio

SALES ENGINEERS

L. B. Dow, Inc. 79 Milk St., Boston, Mass.  
The Colby Engineering Co., Inc. 70 First St., Portland, Ore.  
H. H. White, 378 Piedmont Ave., Atlanta, Ga.



## TRUMP TURBINES USED IN THE DEVELOPMENT OF WATER POWER

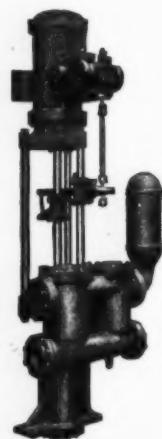
Insures efficient operating results. We build turbine water wheels of all sizes and capacities. Let us have your inquiries.

THE TRUMP MFG. COMPANY  
Greenmount Street SPRINGFIELD, OHIO

SLUICE GATES  
Shear, Flap and Butterfly Valves  
FLEXIBLE JOINTS  
COLDWELL-WILCOX CO.

2 River Street

NEWBURGH, N. Y.



## A NEW DESIGN IN VERTICAL SINGLE MARINE PUMPS

Sizes 8x6x12 up to 16x12x27 now ready

TO SUIT NAVY OR EMERGENCY FLEET SPECIFICATIONS

We are in position to quote on other pump requirements for Emergency Fleet Ships

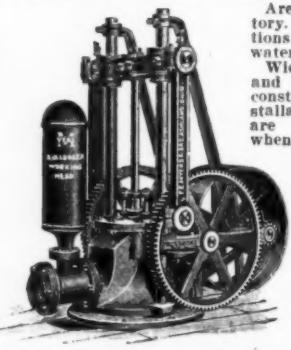
Address All Inquiries to the Marine Department

NATIONAL TRANSIT PUMP & MACHINE COMPANY  
OIL CITY, PA.

## MYERS POWER PUMPS

Are ideal power water lifters for mill, mine or factory. They have proved this by innumerable installations under all kinds of conditions and by dependable water facilities they furnish.

Wide range of styles and sizes, simplicity of construction, ease of installation and operation are worth considering when you are ready to purchase. You get them all with the MYERS Catalog on request.



F. E. MYERS & BRO.  
ASHLAND, OHIO

## ERIE



To handle sand, gravel and other solids in suspension at a minimum cost, use

### ERIE SAND & GRAVEL DREDGING PUMPS

These pumps can be furnished for belt drive, motor drive or direct connected to steam engines as required.

Ask for Bulletin M-33

ERIE PUMP and ENGINE WORKS  
Formerly of Erie, Pa. MEDINA, N.Y.

## EMERSON PUMPS

Need No Priming  
—No Lubrication  
—No Attention

Ready for Immediate Shipment Send for Catalog  
Emerson Pump & Valve Co., Alexandria, Va.

## S. MORGAN SMITH CO., - York, Pa.

Builders of SMITH HYDRAULIC TURBINES to meet all requirements from 5' to 600' head.

Address your inquiry to Dept. "M"

(See last or next issue.)

## ELLDRILLING PAYS BIG MONEY

Own a machine of your own on easy terms.

Many styles and sizes for all purposes.

Write for Circular

WILLIAMS BROS.  
426 W. State St.  
ITHACA, N. Y.

Gray Artesian Well Co.  
Specialty Well Drilling

American Bank Bldg. Pensacola, Fla.

## SAND FOR CONCRETE

Washed and Screened. Equipped to large orders. Prompt Service.  
MACON FUEL & SUPPLY CO.  
MACON, GA.  
Agents Standard Portland Cement.

XUM

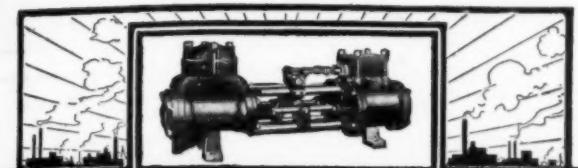
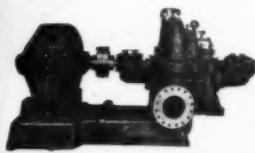
XUM

## Have You Our Catalog?

Before you order centrifugal pumping equipment for any purpose, write for our catalog of Lea-Courtenay Pumping Equipment. It tells you all the advantages—the efficiency, economy, reliability and durability—and the chief reasons for these advantages. It also tells you why many expert engineers insist on Lea-Courtenay equipment and where it has been installed.

Here's the point—if you are going to buy in the near future, get the Lea-Courtenay catalog first.

**LEA-COURTENAY CO.**  
7 Maine St., Newark, N. J.



### THE VALVE MOVEMENT

of DEAN BROS. DURABLE DUPLEX STEAM PUMP is the most important improvement that has been made on a duplex steam pump for twenty-five years.

Send for Catalog No. 104.

**DEAN BROS. STEAM PUMP WORKS.**  
NOT IN THE PUMP TRUST.

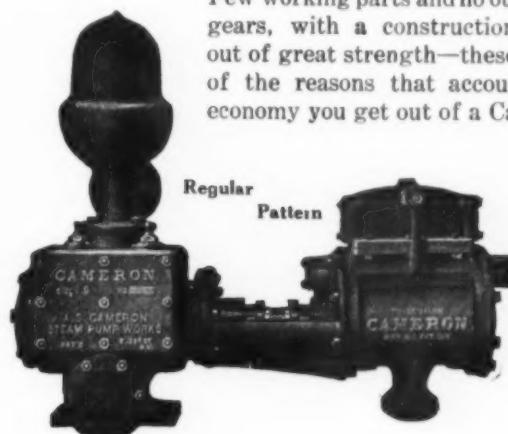
*The Slogan of the Cameron—“Character: The Grandest Thing.”*

## True Pump Economy CAMERON PUMPS

When you buy a Cameron Pump you pay a little more to get a great deal more.

From the time you install a Cameron you start with lower upkeep and repair costs. In the end you pay less for the Cameron than if you had bought a cheap pump.

Few working parts and no outside valve gears, with a construction throughout of great strength—these are some of the reasons that account for the economy you get out of a Cameron.

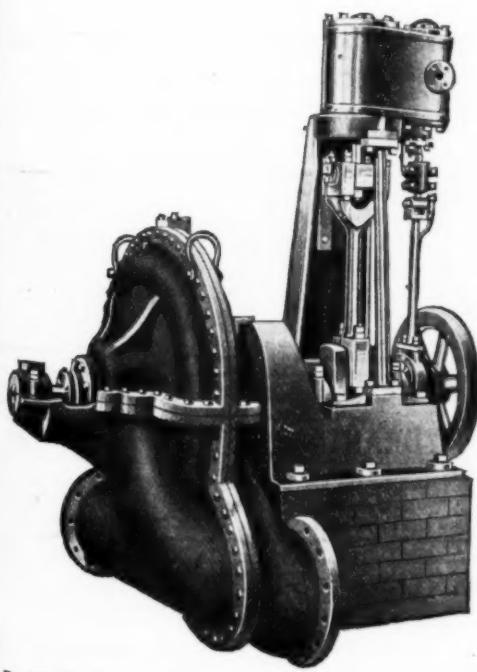


*Full details in Bulletin No. 7201—it's free.*

## A. S. Cameron Steam Pump Works

11 Broadway, NEW YORK 44-5 Offices the World Over

## MORRIS is specializing on PUMPS for Surface Condensers



Double Suction Pump directly connected to Steam Engine for Surface Condensers.

A list of our customers would include the leading ship building companies of the United States and Canada.

Whether you require one or one hundred outfits, we can take care of your requirements.

We build a complete line of Centrifugal Pumps of all sizes. Also Steam Engines, Stationary and Marine, up to 1,000 H. P.

*Have you our Catalog?*

## Morris Machine Works

Baldwinsville, N. Y.

Builders of Centrifugal Pumps, Hydraulic Dredges, Steam Engines

Branches in Principal Cities

## National Cast Iron Pipe Company

Birmingham, Alabama

Manufacturers of

**CAST IRON** Water and Gas Pipe, and  
Fittings, Flanged Pipe, Flanged Fittings  
and general castings

**SALES OFFICES:**

Birmingham, Alabama

No. 1216 Peoples' Gas Building, Chicago, Ills.

No: 903 Commerce-Trust Building, Kansas City, Mo.

Blair & Co., Bankers' Investment Bldg, San Francisco, California



## The Cast Iron Pipe Publicity Bureau

1 Broadway

NEW YORK

**Durable, Strong  
and Will Not Rust**

### MICHIGAN WOOD PIPE

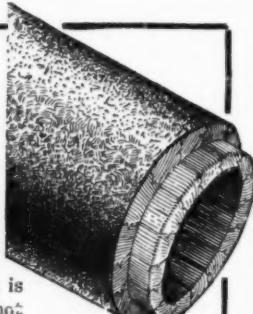
Specified by leading engineers everywhere. It is economical, both in laying and upkeep. Will not rust or clog. Insist on Michigan Pipe all the time.

Write for a copy of the Michigan Book

**MICHIGAN PIPE COMPANY, Madison St., BAY CITY, MICH.**

Southern Representatives:

CHATTANOOGA, TENN.: Robt. R. Nixon Co., 319 Hamilton Nat. Bank Bldg.  
OKLAHOMA CITY, OKLA.: F. H. Loefler, 711 Majestic Bldg.



**Would A Saving Of \$25,000.00 Per  
Mile Interest  
You?**

You can save this by installing 48-inch or  
\$10,000.00 per mile by installing 24-inch

### WYCKOFF WOOD PIPE

and it lasts as long as Cast Iron Pipe. It's easier and cheaper to lay. Will not freeze. When new, delivers 15 to 10% more water than Cast Iron Pipe, and the longer it is used the less friction loss. Get full details in our catalog.

**A. Wyckoff & Son Co. Elmira, N. Y.**  
Southern Representative:  
H. H. WHITE, 378 Piedmont Avenue, Atlanta, Ga.

### Riveted Pipe Shipment to New Jersey from North Carolina

Four carloads, each carload containing twenty-eight sections of pipe 27 inches diameter, weighing 1100 pounds each, making one shipment of over 61 tons of riveted pipe.



Manufactured by  
**New Bern  
Iron Works  
&  
Supply Co.**  
(Incorporated)  
NEW BERN, N. C.

### "PIPE SPECIALISTS FOR FORTY-EIGHT YEARS"

ROOT SPIRAL RIVETED PIPE

**ROOT** WATER TUBE BOILERS  
SPIRAL RIVETED PIPE  
ABENDROTH & ROOT MANUFACTURING CO.

Works—Newburgh, N. Y. New York Office—Woolworth Building, 233 Broadway

### IDEALS + RESULTS = SERVICE



"THE VISION OF A GREATER SERVICE", which has resulted in the development of special types of "NATIONAL" Pipe fulfilling practically every wrought pipe requirement, has been the impelling spirit of National Tube Company for over fifty years.

A full page announcement on this subject will appear in next week's issue. Worth watching for! Worth reading!

NATIONAL TUBE COMPANY,

Pittsburgh, Pa.

### "Sewer Pipe of Quality" MADE OF OHIO RIVER FIRE CLAY

By test 43% stronger than competitor.  
Send for special test circular.

**Cannelton Sewer Pipe Co.**

CANNELTON, IND.

SOUTHERN DISTRIBUTOR—  
FISCHER LIME & CEMENT CO., Memphis Tenn.

WESTERN DISTRIBUTOR—ST. LOUIS CLAY PRODUCTS CO., ST. LOUIS Mo.

### AMERICAN CAST IRON PIPE COMPANY

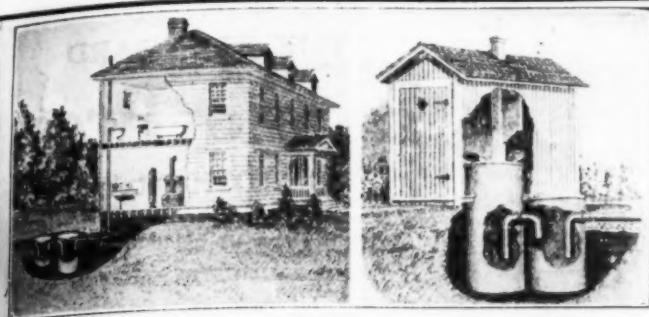
Manufacturers of **CAST IRON PIPE AND FITTINGS**  
BIRMINGHAM, ALA.

SALES OFFICES:  
Birmingham, Ala., Box 908. Chicago, Ill., 512 1st Nat. Bank Bldg.  
Columbus, Ohio, 607 New Hayden Bldg. Dallas, Tex., 1217 Praetorian Bldg.  
Minneapolis, Minn., 712 Plymouth Bldg. Kansas City, Mo., 716 Scarritt Bldg.  
New York City, No. 1 Broadway. San Francisco, Cal., 711 Balboa Bldg.

The Bourbon Copper and Brass Works Company  
MANUFACTURERS OF  
**FIRE HYDRANTS and STOP VALVES**  
Water Works and Fire Department  
Supplies and Extension Valve Boxes  
Long Distance Phone, Canal 3297  
618 and 620 E. Front Street CINCINNATI, OHIO

**STANDARD WOOD PIPE**  
For Water, Chemicals, Heavy Fluids and Mine Waters  
**WHAT ARE YOUR PIPE REQUIREMENTS?**

Write for detail information and  
general catalogue.  
**Standard Wood Pipe Co.**  
Williamsport, Pa., U. S. A.



**"SANISEP" PORTABLE SEWERAGE SYSTEMS**

PATENTED

Septic Closet System

TRADE MARK REGISTERED

The perfect System for industrial villages, suburban homes and schools, with or without running water. Made of reinforced concrete, with solid bottoms, and thoroughly waterproof. All scavenger work done away with, no chemicals required, flyproof and odorless.

ENDORSED BY ALL HEALTH AUTHORITIES

CEMENT PRODUCTS CO., WILMINGTON, N. C.

94 Charleston St., Charleston, W. Va.

Write for Catalogue

Oliver Building, Pittsburgh, Pa.

**Glamorgan Pipe & Foundry Company**  
LYNCHBURG, VA.

MANUFACTURERS OF

Cast Iron Water and Gas Pipe,  
Special Castings, Flanged Pipe  
and Flanged Fittings



Compression Hydrants, Water Gas and Steam Valves  
GENERAL FOUNDERS AND MACHINISTS

**COLUMBIAN IRON WORKS**  
CHATTANOOGA, TENN.  
MANUFACTURERS OF  
Fire Hydrants, Valves, Valve Boxes,  
Sluice Gates, Meter Boxes  
Water-Works Supplies  
ALSO MUNICIPAL AND BUILDING CASTINGS  
Estimates Promptly Furnished  
Eastern Agents:  
THE VALVE SALES CO. No. 1 Madison Ave., NEW YORK

**R. D. WOOD & CO.**  
400 Chestnut Street  
PHILADELPHIA, PA.  
**Centrifugal Pumps**  
ALL SIZES, BELT DRIVEN AND DIRECT CONNECTED  
For Irrigation, Tanneries, Mine Drainage, Phosphate Mining, Circulating Water  
For Condensers, &c., &c.

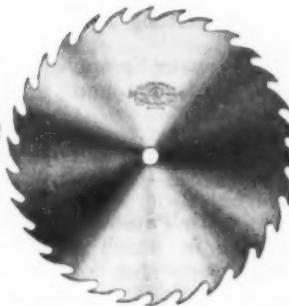
**Artists**  
DESIGNS  
ILLUSTRATIONS  
RETOUCHING  
HOWARD FAYETTE TESTS.  
**ALPHA**  
PHOTO  
ENGRAVING  
CO  
**Engravers**  
HALFTONES  
LINE ENGRAVINGS  
COLORPLATES  
BALTIMORE MD

**DRAWING INSTRUMENTS**  
Genuine RIEFLER Round (Tubular) System  
Built for service. All parts interchangeable. Standard line.  
Universally used and endorsed in Europe. Drawing Instruments of all grades for professionals, schools and colleges.  
Catalogue sent on request  
**F. WEBER & COMPANY**  
Main Office and Factory  
PHILADELPHIA  
Branch Houses:  
St. Louis, Mo. Baltimore, Md.  
Second-Hand Transits and Levels  
First-class condition, perfect adjustment, and bargains at their respective figures.  
"Everything for the Drawing Room"  
Repairing solicited



**ATKINS SILVER STEEL SAWS**

Machine  
Knives



Saw  
Tools

"FINEST ON EARTH"

QUALITY is an inherent asset of every product we make. It is protection to the buyer and user and a quality that ultimately distinguishes ATKINS SAWS and KNIVES from the rest.

The use of ATKINS SAWS and KNIVES brings maximum results. Production is increased, and both operating and initial costs are reduced.



**Silver Steel Saws  
Knives and Tools**

Have assisted largely in the success of many woodworking industries that are developing under war pressure. Forced to the limit or operating under normal conditions, Atkins products present the greatest utility that exists in similar equipment.

Information is promptly furnished on items that you are most interested in. Write to nearest point below for our complete catalog.



**E. C. ATKINS & CO., Inc.**

Established 1857

The Silver Steel Saw People

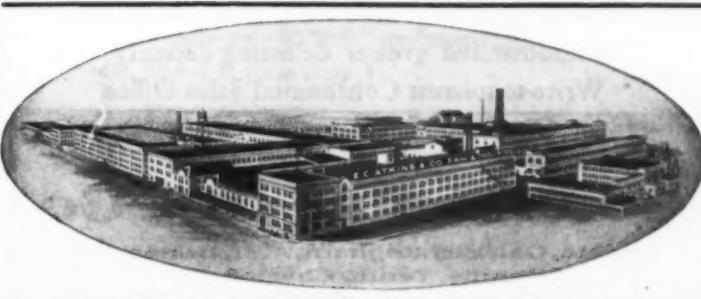
Home Office and Factory, Indianapolis Ind.

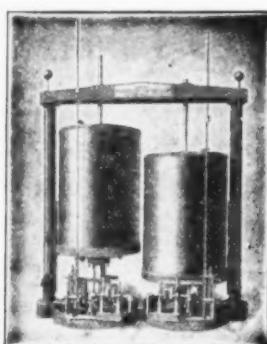
Machine Knife Shop, Lancaster, Pa. Canadian Factory, Hamilton, Ont.

Branches carrying complete stocks in all large distributing centers, as follows:

Atlanta, Chicago, Memphis	Minneapolis, New Orleans, New York City	Portland, Ore., San Francisco, Seattle	Vancouver, B. C., Washington, D. C., Sydney, N. S. W.
---------------------------	---	--	---

Paris, France





# Oil Mill Machinery

for Cottonseed, Linseed, Mustard Seed, Rape Seed, Soya Bean, Castor Bean, Sesame and Copra.

Hydraulic Presses  
Chilled Crushing Rolls  
Automatic Cake Trimmers

Hydraulic Pumps

Hydraulic Accumulators  
Disc Hullers  
Cake Breakers

Latest and Most Approved Types  
Cotton Seed Cleaning, Hulling and Separating Machines

CAKE FORMERS—Automatic Steam, Hand Steam, Hydraulic and and Power.

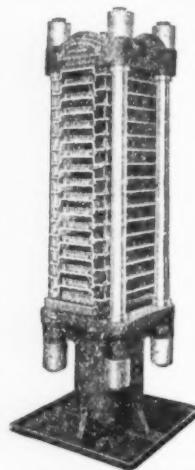
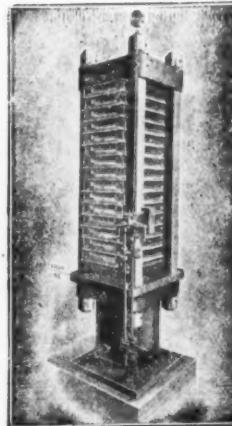
COOKERS—Horizontal, Upright and Automatic Stack.

ATTRITION MILLS—with Patented Wave Line Plate in which a grove cannot be worn—for hot or cold cake.

ACCUMULATOR SYSTEM — The only perfect one devised.

**Buckeye Iron & Brass Works**

Manufacturers of Complete Equipments  
Dayton, Ohio, U. S. A.



**THE MURRAY COMPANY**  
DALLAS, TEXAS      ATLANTA, GA., U. S. A.  
ENGINEERS AND BUILDERS  
COMPLETE MODERN OIL MILL EQUIPMENT

Pneumatic Seed Cleaners  
Automatic Linters  
Ball Bearing Automatic Hullers  
Steel Frame Shakers  
Steel Frame Hull Beaters  
Crushing Rolls  
Mechanical Cookers  
Automatic Steam Cake Formers  
All Steel Hydraulic Presses  
Power Hydraulic Pumps

*Everything for an Oil Mill*

HYDRAULIC PRESS

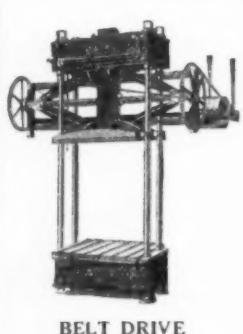
Write Us for Estimates and Descriptive Matter

# Continental Linters

Are more generally used in Cotton Oil Mills than any other, because of their demonstrated greater delinting capacity. Write to nearest Continental Sales Office for Catalogue L-4.

# Continental Gin Co.

Atlanta, Ga., Birmingham, Ala., Dallas, Tex.,  
Memphis, Tenn., Charlotte, N. C.



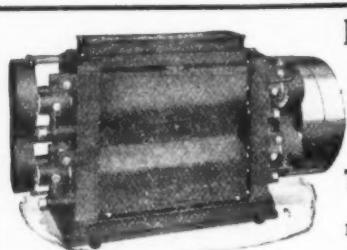
# THE STANDARD Baling Press FOR CLOTH OR YARN

Size—to suit your needs.  
Power—50 to 500 tons.

ALSO HYDRAULIC PRESSES AND PUMPS

Let us send you our Catalogue

DUNNING & BOSCHERT PRESS CO., Inc.  
Established 1872  
386 West Water St.      Syracuse, N. Y.



# Pressroom Machinery

We Manufacture a Complete Line

Guaranteed to Reduce Expenses and Increase Quantity and Quality of Product.

WRITE  
The French Oil Mill Machinery Co.  
Dept. E, Piqua, Ohio  
PAUL WATSON,      M. W. FAHERTY,  
Galveston      Memphis  
TOM R. BROOKS, 615 Empire Bldg., Atlanta, Ga.

# THE CARDWELL MACHINE CO.

RICHMOND, VA., U. S. A.  
WE MANUFACTURE A FULL LINE OF

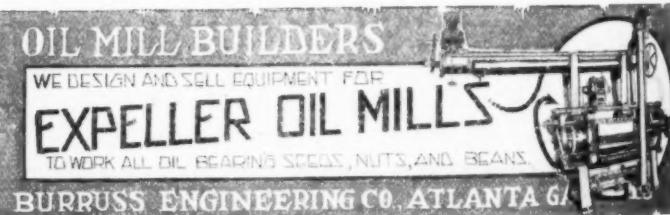
# OIL MILL MACHINERY

Cotton Seed, Linseed, Rape-seed, Olive, Peanut, Castor, Fish & Lard Oil  
HYDRAULIC BALING PRESSES, TOBACCO MACHINERY

# Anderson Oil Expeller

For Cottonseed, Peanut and  
Bean Oil Mills

THE V. D. ANDERSON CO.      CLEVELAND, O.



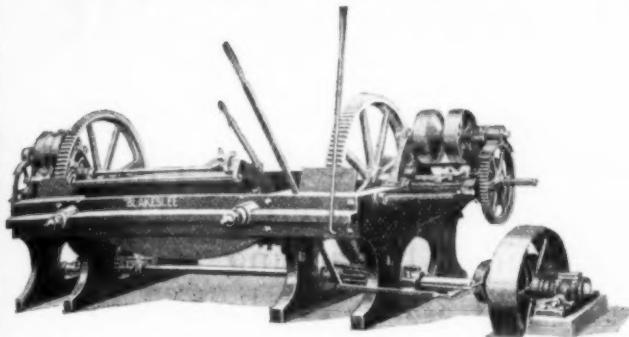
# SACO-LOWELL SHOPS Textile Machinery

Executive Office : 77 Franklin Street, Boston, Mass.  
Southern Office: Rogers W. Davis, Southern Agent, Charlotte, N. C.  
Shops: Biddeford, Maine; Lowell, Mass.; Newton Upper Falls, Mass.



Specialists in Humidity and Temperature Regulation  
**Carrier**  
AIR CONDITIONING AND DRYING EQUIPMENT  
Engineering corporation  
29 Cortland St. NEW YORK  
BOSTON PHILADELPHIA BUFFALO CHICAGO

# "BLAKESLEE"



## VENEER LATHE

For the Manufacture of

### General Line of Veneers, Box Shooks, Egg Cases, Fruit and Vegetable Packages

A "Blakeslee" lathe will cut 18,000 to 28,000 ft. Log Scale, according to diameter of blocks, every 10-hour day into  $\frac{1}{8}$ " and  $\frac{1}{4}$ " Box Shooks, producing them to width, thickness and length in one operation by the use of our special features which increases output and saves labor and material.

**American-Blakeslee Mfg. Co.**  
BIRMINGHAM, ALA., U. S. A.

## BLOW-PIPE AND SHEET IRON WORKS

Exhaust Fans  
Blow Piping

Dust Collectors  
Furnace Feeders

Sheet Iron Work  
Complete Systems

**IF WE DO YOUR JOB IT WILL BE RIGHT**  
and cost less than the other kind

SHREVEPORT BLOW-PIPE & SHEET IRON WORKS, Ltd., Shreveport, La.

## SLOW SPEED FANS AND BLOW PIPE SYSTEMS

For Woodworking Factories and Dust Producing Machinery.  
Complete Equipments Furnished and Installed

National Blow Pipe & Mfg. Co., Ltd., 736 Dryades St., New Orleans, La.

Simply set a Soule Steam Feed in place, bolt it down  
and it is ready for the steam. It saves time,  
money and worry to the Saw Mill Man.

CATALOG M IS FREE

SOULE STEAM FEED WORKS, Meridian, Miss.

## "THE STANDARD" SCALES

"THE SCALES STANDARD"

The standard of high-grade construction, accuracy, reliability, strength, durability and price.  
Capacity 1-16 oz. to 200 tons. Write for catalog No. 16.

THE STANDARD SCALE & SUPPLY COMPANY  
Pittsburgh, Pa., 1631 Liberty Ave. Baltimore, Md., 409-11 N. Gay St.



## Are You Having Labor Troubles?

One of the most satisfactory methods of quieting labor unrest and reducing labor turnover has been found through the installation of

### GROUP INSURANCE

It quiets the restless disposition of the floating element. Unfortunately (due to war conditions and domestic influence), the trouble with many workmen is that they imagine other workers are doing considerably better somewhere else. Until their present employer voluntarily offers something in addition to their present wages, as an expression of appreciation for the service they rendered, this class will continue to drift.

The employer suffers, and he can best combat this situation by adopting a plan which has been tried out and favorably endorsed by executives of many corporations who were obliged to contend with similar disturbances.

We have hundreds of expressions of appreciation from employees who are now recipients of these benefits.

The Aetna Life Insurance Company will issue group policies on either participating or non-participating plans at lowest possible rates.

We are in position to meet your requirements. Our plans are simple and flexible. Our wide experience in handling and developing group insurance peculiarly fits us to work out a plan that will best meet your needs.

*A thoroughly posted representative on group insurance will gladly explain our plan.*

## THOMAS & THOMAS

HOME OFFICE REPRESENTATIVES

Aetna Life Insurance Company of Hartford, Conn.

S. W. Cor. Calvert and German Streets (2nd Floor), Baltimore, Md.  
718 Widener Bldg., Philadelphia, Pa.

To the

## MANUFACTURER and DISTRIBUTOR

Abundant supplies of coal, coke, iron, timber and other raw materials lie in the regions of Georgia and Alabama, which are traversed by the

## Central of Georgia Railway

Cheap electric power, numerous undeveloped water-powers, good home markets and excellent shipping facilities. Therefore, manufacturing conditions are ideal.

Many of the cities on the Central of Georgia Railway occupy advantageous positions for distributing warehouses, and a number of the larger northern and eastern manufacturers supply their southeastern trade from branch houses in these cities.

Full and detailed information upon application.

**J. M. MALLORY, Industrial Agent**  
**SAVANNAH, GEORGIA**

# FLORIDA AS A CATTLE RAISING STATE

In this time of great food demand and food shortage, the following extract from the annual address of the President of the Florida Live Stock Association is of commanding interest. The possibilities afforded by the State of Florida for adding materially to the Nation's supply of meat and dairy products are thus set forth:

**"But disquieting as are the times, the business of the stock raiser in America, and particularly in Florida, was never on so sound a basis as today, never so full of promise."**

**"The exhaustion of domestic animals throughout Europe and the increasing shortage in our own country are creating a demand which will insure for many years to come a profitable market for all the beef, pork, mutton, and dairy products which we can supply."**

**"Definitely, I think it can be said that there can be no danger of overproduction in these lines for a long time to come. And for this industry, which we may perhaps properly call the ancient, fundamental, necessary, stable, wholesome, honorable and delightful of all the occupations in which men are engaged, Florida has advantages of soil, climate, rainfall and location greater on the whole than those enjoyed by any other State of the American Union. This is being recognized in increasing measure, far and wide."**

**"The eyes of discerning and experienced men are being turned this way as never before. Inquiries by mail and visits of exploration from the North, the West and the Southwest, have never before been so numerous as during the year which we are reviewing, and our own people are awakening to the opportunities which lie all about them, unused and inviting."**

**"There are vast areas of cheap and hitherto waste lands in every part of the State, lying open the year 'round to the genial and fructifying rays of a semi-tropical and sub-tropical sun, which need only the expenditure upon them of money and labor to fit them for the support of herds and flocks greater than any other region can maintain."**

**"We have every reason, as we face the new year to take courage and to gird ourselves for the task of turning into reality these gracious possibilities which nature has spread about us with a lavish hand."**

This Company will be glad to supply full information to inquirers.

## MODEL LAND COMPANY OF THE FLAGLER SYSTEM

JAMES E. INGRAHAM, President

ST. AUGUSTINE, FLA.

# Building A Complete Cycle of Chemical Industries on the Clinchfield Railway

## ADVANTAGES:

**1—LOCATION:** The Carolina, Clinchfield and Ohio Railway traverses the territory known as the Southern Appalachian Region, between Elkhorn City, Kentucky, and Spartanburg, South Carolina. A study of the geographical and geological maps will disclose the important and logical situation of the Clinchfield Railway with respect to raw materials as well as distribution facilities for manufactured products.

**2—RAW MATERIALS:** It is doubtful if any section of the country is so bountifully blessed with so great a variety of raw products of commercial value. Its great coal fields, and deposits of Iron Ore, Kaolin, Feldspar, Mica, Zinc, Ochre, Asbestos, Chrome, Limestone, Dolomite, Quartz, and other minerals of lesser importance, make this region truly a MINERAL PARADISE. All of these are supplemented by a vast forest, the by-products of which offer a supply of raw materials for chemical plants, such as pulp mills, extract and wood distillation plants.

**3—BUILDING MATERIALS:** New industries can be assured of quick and low-cost construction because the necessary building materials are manufactured on the Clinchfield Railway, such as high-grade Portland Cement, brick, lime, tile, lumber, etc.

**4—LABOR:** The supply of labor is of the sturdy Anglo-Saxon type, and, as a whole, is very contented on account of the fine climate and favorable living conditions. It is skillful and intelligent, becoming readily adapted to new conditions, and intricate processes requiring the greatest care. This has been demonstrated by the experience of the large manufacturing plants already established along the Clinchfield Railway.

**5—CHEAP POWER:** The power resources of the Clinchfield are hardly to be exceeded anywhere in the country. The coal fields being developed on the north end of the road guarantee an ample and continuous supply of coal, coke and gas. In addition to these coal resources the road possesses ample power facilities in the several large rivers that drain this territory.

The cheap steam and hydro-electric power possibilities coupled with the raw materials at hand, make this region unusually attractive to the electro-chemical industries.

**6—DISTRIBUTION FACILITIES:** The physical connections of the Clinchfield Railway with important trunk lines on the north and south, and east and west, give the Clinchfield Territory superior features both from the standpoint of assembling raw materials and the distribution of finished products. This territory is in efficient touch with all portions of the country.

For Complete Information Address

## Carolina, Clinchfield and Ohio Railway

JOHNSON CITY, TENNESSEE



**CHEMICALS.**  
Devon Chemical Co., Baltimore, Md.  
DuPont Chemical Works, New York, N. Y.  
Hollis Chemical Co., Inc., Charleston, W. Va.

**CHEMICAL PLANT ACCESSORIES.**  
Huntington Mach. & Fdy Co., Birmingham, Ala.  
Talley Iron Works, Williamsport, Pa.  
Warren Chemical Co., New York, N. Y.

**CHEMICAL CASTINGS.** (Acid Proof.)  
Dow Corning Co., Dayton, O.

**CHIMNEYS.**

Int. Engineering Co., The, Pittsburgh, Pa.  
RADIAL BRICK.

Int. Engineering Co., The, Pittsburgh, Pa.

**CHLORIDE ACCUMULATOR.**

Int. Storage Battery Co., The, Philadelphia, Pa.

**CHLORINE GAS APPARATUS.**

Warren Chemical Co., New York, N. Y.

**CLEANING COMPOUND.** (Floors, etc.)

Jolla Alkali Works, Boston, Mass.

**CLOCKS.** (Watchman's Portable.)

Seawall Clock Co., Boston, Mass.

Seawall Clock Co., New York, N. Y.

**CLUTCHES.** (Friction.)

Caldwell Co., W. E., Louisville, Ky.

Judge Sales & Engg. Co., Mishawaka, Ind.

Meder Patent Pulley Co., St. Louis, Mo.

Weller Mfg. Co., Tiffin, Ohio.

**COAL.**

The Alabama Co., Birmingham, Ala.

Consolidation Coal Co., Inc., New York, N. Y.

Hammond-Byrd Co., The, Birmingham, Ala.

Tennessee Coal, Iron & R. R. Co., Birmingham, Ala.

**COAL CUTTERS.**

Jeffrey Mfg. Co., Columbus, Ohio.

**COAL HANDLING MACHINERY.**

Bartlett & Snow Co., The, C. O., Cleveland, O.

Hedges Mfg. Co., New York, N. Y.

Hayward Co., New York, N. Y.

Hunt Co., Inc., C. W., West New Brighton, N. Y.

Jeffrey Mfg. Co., Columbus, Ohio.

Link-Belt Co., Philadelphia, Pa.

Portable Mchry. Co., Inc., Paterson, N. J.

Rader Conveying Belt Co., New York, N. Y.

Seepard Electric Crane & Hoist Co., Montour Falls, N. Y.

Webster Mfg. Co., Tiffin, Ohio.

Weller Mfg. Co., Chicago, Ill.

Welman-Leaver-Morgan Co., The, Cleveland, O.

**COAL TAR AND BY-PRODUCTS.**

Bartlett Co., New York, N. Y.

**COAL TAR.**

Bier Hill Steel Co., Youngstown, Ohio.

**COAL TIPPLES.**

American Bridge Co., New York, N. Y.

Indy Mfg. Co., Indianapolis, Ind.

Webster Mfg. Co., Tiffin, Ohio.

**COKE.** (Acid Proof.)

Bartlett Casting Co., Dayton, Ohio.

**COIL MAKING.** (Armature and Field.)

Charlotte Elec. Repair Co., Charlotte, N. C.

**COKE.**

Alabama Co., The, Birmingham, Ala.

Bier Hill Steel Co., Youngstown, Ohio.

Tennessee Coal, Iron & R. R. Co., Birmingham, Ala.

**COKE OVENS.** (By-Products.)

Koppers Co., H., Pittsburgh, Pa.

Smith Co., S. H., Pittsburgh, Pa.

**COKE OVEN MACHINERY.**

Welman-Leaver-Morgan Co., The, Cleveland, O.

**COLD STORAGE DOORS.**

Breck Co., The, St. Louis, Mo.

**COLLARS.** (Shaft.)

Bartlett & Mfg. Co., Manheim, Pa.

**COLUMNS.** (Cast Iron.)

U. S. Cast Iron Pipe Fdy. Co., Burlington, N. J.

**CONCENTRATING APPARATUS.**

Bartlett Casting Co., Dayton, O.

**CONCRETE CONSTRUCTION.** (Reinforced.)

Argus Company, Pittsburgh, Pa.

Corrugated Bar Co., Buffalo, N. Y.

General Fireproofing Co., Youngstown, Ohio.

Hammond Engineering Co., The, Pittsburgh, Pa.

**CONCRETE CURB PROTECTOR.** (Steel.)

Taco Steel Co., Youngstown, Ohio.

Westinghouse Steam Pump Wks., Indianapolis, Ind.

Northwestern Steel & Iron Wks., Eau Claire, Wis.

**CONCRETE REINFORCING BARS.**

Carnegie Steel Co., Pittsburgh, Pa.

Concrete Steel Co., New York, N. Y.

Corrugated Bar Co., Buffalo, N. Y.

Metz Brothers, Baltimore, Md.

Metz Co., R. C., Baltimore, Md.

Metz & Langdon Steel Co., Pittsburgh, Pa.

Lackawanna Steel Co., Lackawanna, N. Y.

Laclede Steel Co., St. Louis, Mo.

Republic Iron & Steel Co., Youngstown, Ohio.

Steel's Steel Co., Williamsport, Pa.

**CONCRETE REINFORCING WIRE AND WIRE FABRIC.**

American Steel & Wire Co., Chicago, Ill.

Consolidated Expanded Metal Co.'s, Braddock, Pa.

**CONDENSERS.** (Acid Proof.)

Bartlett Casting Co., Dayton, O.

**CONDUITS.** (Electrical, Interior, Steel.)

National Metal Molding Co., Pittsburgh, Pa.

Youngstown Sheet & Tube Co., Youngstown, O.

**CONDUTIVE FITTINGS.**

National Metal Molding Co., Pittsburgh, Pa.

**CONTRACTORS.**

BUILDING.

Atlanta Co., The, Cleveland, Ohio.

Concrete Steel Bridge Co., The, Clarksburg, W. Va.

Hammond Const. Co., John T., Lynchburg, Va.

Westhouse Church Kerr & Co., New York, N. Y.

White Corp., J. G., New York, N. Y.

**DRAGAGE.**

Atlantic, Gulf & Pacific Co., New York, N. Y.

**DRAWDOWN.**

Atlantic, Gulf & Pacific Co., New York, N. Y.

**GENERAL.**

Foundation Co., The, New York, N. Y.

Lane & Co., Inc., C. W., Atlanta, Ga.

Stone & Webster, Boston, Mass.

White Corp., J. G., New York, N. Y.

**GRADING.**

Atlantic, Gulf & Pacific Co., New York, N. Y.

**HAULING.**

Ireland, T. M., Baltimore, Md.

**POWER PLANTS.**

Allen Sales Engg. Co., Inc., Nashville, Tenn.

**RAILROAD.**

American Equipment Co., New York, N. Y.

Ireland, T. M., Baltimore, Md.

Johnson Co., Inc., Wm. T., Cincinnati, Ohio.

Richmond Mill Supply Co., Richmond, Va.

**REINFORCED CONCRETE.**

Concrete Steel Bridge Co., The, Clarksburg, W. Va.

Foundation Co., The, New York, N. Y.

White Corp., J. G., New York, N. Y.

**REINFORCING.**

Turner Hasley Co., New York, N. Y.

**ROADING.**

Turner Hasley Co., New York, N. Y.

**ROAD AND STREET PAVING.**

Lane & Co., Inc., C. W., Atlanta, Ga.

McCrory Co., J. B., Atlanta, Ga.

McKinney Const. Co., John T., Lynchburg, Va.

Southern Purchasing Co., Chattanooga, Tenn.

**SEWER AND WATER-WORKS.**

Lane & Co., Inc., C. W., Atlanta, Ga.

McCrory Co., J. B., Atlanta, Ga.

**SOILS.**

Turner Hasley Co., New York, N. Y.

**SOILS.**</p

## ELEVATORS.

## AUTOMATIC.

Mathews Gravity Carrier Co., Ellwood City, Pa.

## ELECTRIC.

American Elev. &amp; Mch. Co., Inc., Louisville, Ky. K. C. Elevator Mfg. Co., Kansas City, Mo. Moffatt Mchry. Mfg. Co., Charlotte, N. C. Otis Elevator Co., New York, N. Y. Speddel, J. G., Reading, Pa. Warsaw Elevator Co., Baltimore, Md.

## HAND AND BELT POWER.

American Elev. &amp; Mch. Co., Inc., Louisville, Ky. K. C. Elevator Mfg. Co., Kansas City, Mo. Moffatt Mchry. Mfg. Co., Charlotte, N. C. Otis Elevator Co., New York, N. Y.

## PORTABLE FOR WAREHOUSES, ETC.

Economy Engineering Co., Chicago, Ill.

## STEAM HYDRAULIC.

Otis Elevator Co., New York, N. Y. Ridgway &amp; Son Co., The, Coatesville, Pa.

## ELEVATOR BUCKETS.

Alvey-Ferguson Co., Inc., Cincinnati, Ohio. Caldwell &amp; Son Co., H. W., Chicago, Ill. Hendrick Mfg. Co., Carbondale, Pa. Jeffrey Mfg. Co., Columbus, Ohio. Link-Belt Co., Philadelphia, Pa.

## ELEVATOR ENCLOSURES AND CABS.

Bolles Iron &amp; Wire Works, J. E., Detroit, Mich. Dexter Metal Mfg. Co., Camden, N. J. Dow Wire &amp; Iron Works, Inc., Louisville, Ky. Dufur &amp; Co., Baltimore, Md. Dufur, Bargott &amp; Co., Baltimore, Md. Meyers Mfg. Co., The Fred J., Hamilton, Ohio. Otto Elevator Co., New York, N. Y.

## EMERY WHEEL STANDS.

Webster &amp; Ferks Tool Co., The, Springfield, O.

## ENAMELS.

Arco Co., Cleveland, Ohio.

## ENGINEERS.

## AGRICULTURAL.

Morse, Stanley F., New Orleans, La.

## APPRAISAL.

Allison, Walter A., Philadelphia, Pa. American Appraisal Co., The, Milwaukee, Wis. Black &amp; Veatch, Kansas City, Mo. Day &amp; Zimmerman, Inc., Philadelphia, Pa. Ford, Bacon &amp; Davis, New York, N. Y. Klinear &amp; Co., W. S., New York, N. Y. Meade &amp; Co., Richard K., Baltimore, Md. Weller, Francis R., Washington, D. C.

## BLAST FURNACES.

Fuller Engineering Co., Allentown, Pa. Guernsey &amp; Co., John B., Roanoke, Va. McKee &amp; Co., Arthur G., Cleveland, Ohio. Smyth Co., The S. R., Pittsburgh, Pa.

## BRIDGE.

Concrete Steel Bridge Co., The, Clarksburg, W. Va. Concrete-Steel Engr. Co., New York, N. Y. Foundation Co., The, New York, N. Y. Freedland-Klyce Engr. Co., Nashville, Tenn. Gardner &amp; Howe, Memphis, Tenn. Hendrick &amp; Hedrick, Kansas City, Mo. Klinear &amp; Co., W. S., New York, N. Y. Knowles &amp; Morris, Pittsburgh, Pa. Moore &amp; Co., W. E., Pittsburgh, Pa. Peirce &amp; Fairley, Blytheville, Ark. Wiley &amp; Wilson, Lynchburg, Va.

## CENTMILL.

Fuller Engineering Co., Allentown, Pa. Meade &amp; Co., Richard K., Baltimore, Md.

## CHEMICAL.

Birmingham Mach. &amp; Fdry. Co., Birmingham, Ala. Dow &amp; Smith, New York, N. Y. Foundation Co., The, New York, N. Y. Gilbert, N. A., Asilomar, Ala. Inst. of Industrial Research, Inc., Wash., D. C. Little, Inc., Arthur D., Cambridge, Mass. Mineral Corporation of America, Inc., New York. Meade &amp; Co., Richard K., Baltimore, Md. Nelson, Jr., Wm. P., New Orleans, La. Pittsburgh Testing Laboratory, Pittsburgh, Pa.

## CIVIL.

Arnold Co., The, Chicago, Ill. Brackett, F. Ernest, Cumberland, Md. Clark &amp; Krebs, Charleston, W. Va. Concrete-Steel Engr. Co., New York, N. Y. Foundation Co., The, New York, N. Y. Gardner &amp; Howe, Memphis, Tenn. Hall &amp; Son, B. M., Atlanta, Ga. Klinear &amp; Co., W. S., New York, N. Y. Knowles &amp; Morris, Pittsburgh, Pa. Moore &amp; Co., W. E., Pittsburgh, Pa. Peirce &amp; Fairley, Blytheville, Ark. Wiley &amp; Wilson, Lynchburg, Va.

## DAMS.

Blylesby &amp; Co., H. M., Chicago, Ill. Foundation Co., The, New York, N. Y. Gardner &amp; Howe, Memphis, Tenn. Main, Chas. T., Boston, Mass. Moore &amp; Co., W. E., Pittsburgh, Pa. Peirce &amp; Fairley, Blytheville, Ark. Wiley &amp; Wilson, Lynchburg, Va.

## DRAINAGE AND IRRIGATION.

Ford, Bacon &amp; Davis, New York, N. Y. Knowles, Morris, Pittsburgh, Pa. Peirce &amp; Fairley, Blytheville, Ark. Spray Engr. Co., Boston, Mass.

## EFFICIENCY.

Inst. of Industrial Research, Inc., Wash., D. C. Little, Inc., Arthur D., Cambridge, Mass. Moore &amp; Co., W. E., Pittsburgh, Pa. Nelson, Jr., Wm. P., New Orleans, La.

## ELECTRICAL.

Arnold Co., The, Chicago, Ill. Friend &amp; Webs, New Orleans, La. Lide, Martin J., Birmingham, Ala. Meade &amp; Co., Richard K., Baltimore, Md. Moore &amp; Co., W. E., Pittsburgh, Pa. Stone &amp; Webster, Boston, Mass. Stuart, James &amp; Cooke, New York, N. Y. Tucker &amp; Laxton, Charlotte, N. C. Westhouse Church Kerr &amp; Co., New York, N. Y. White, Gilbert C., Charlotte, N. C. Wiley &amp; Wilson, Lynchburg, Va.

## ELECTRIC LIGHT AND POWER PLANTS.

Black &amp; Veatch, Kansas City, Mo. Blylesby &amp; Co., H. M., Chicago, Ill. Ford, Bacon &amp; Davis, New York, N. Y. Foundation Co., The, New York, N. Y. Graves Engr. Co., Inc., New York, N. Y. Moore &amp; Co., W. E., Pittsburgh, Pa. Scofield Engr. Co., Philadelphia, Pa. Stone &amp; Webster, Boston, Mass. Weller, Francis R., Washington, D. C. Westhouse Church Kerr &amp; Co., New York, N. Y. White, Gilbert C., Charlotte, N. C. Wiley &amp; Wilson, Lynchburg, Va.

## Gas.

Allison, Walter A., Philadelphia, Pa. Blylesby &amp; Co., H. M., Chicago, Ill. Ford, Bacon &amp; Davis, New York, N. Y.

## GEOLOGICAL.

Clark &amp; Krebs, Charleston, W. Va. Davis, Geo. C., Philadelphia, Pa. Froehling &amp; Robertson, Richmond, Va. Institute of Indust. Resch., Inc., Wash., D. C. Meade &amp; Co., Richard K., Baltimore, Md.

## HYDRO-ELECTRIC.

Blylesby &amp; Co., H. M., Chicago, Ill. Foundation Co., The, New York, N. Y. Klinear &amp; Co., W. S., New York, N. Y. Knowles &amp; Morris, Pittsburgh, Pa. Main, Chas. T., Boston, Mass. Moore &amp; Co., W. E., Pittsburgh, Pa. Scofield Engineering Co., Philadelphia, Pa. Surrine, J. E., Greenville, S. C. Tucker &amp; Laxton, Charlotte, N. C. Weller, Francis R., Washington, D. C. White Companies, J. G., New York, N. Y. Wiley &amp; Wilson, Lynchburg, Va.

## INDUSTRIAL PLANT.

Austin Co., The, Cleveland, Ohio. Brackett, F. Ernest, Cumberland, Md. Brooks Eng. Co., C. L., Moultrie, Ga. Concrete-Steel Bridge Co., The, Clarksburg, W. Va. Day &amp; Zimmerman, Inc., Philadelphia, Pa. Dixie Engineering &amp; Insulating Co., Atlanta, Ga. Foundation Co., The, New York, N. Y. Klinear &amp; Co., W. S., New York, N. Y. Little, Inc., Arthur D., Cambridge, Mass. McKee &amp; Co., Arthur G., Cleveland, Ohio. McKinney Const. Co., John T., Lynchburg, Va. Main, Chas. T., Boston, Mass. Meade &amp; Co., Richard K., Baltimore, Md. Moore &amp; Co., W. E., Pittsburgh, Pa. Nelson, Jr., Wm. P., New Orleans, La. O'Briant, W. C., Memphis, Tenn. Rust Engineering Co., The, Pittsburgh, Pa. Scofield Engineering Co., Philadelphia, Pa. Shearer, C. E., Memphis, Tenn. Stone &amp; Webster, Boston, Mass. Westhouse Church Kerr &amp; Co., New York, N. Y. White Companies, J. G., New York, N. Y. Wiley &amp; Wilson, Lynchburg, Va.

## INSPECTIONS AND TESTS.

Down &amp; Smith, New York, N. Y. Fort Worth Laboratories, Fort Worth, Tex. Froehling &amp; Robertson, Richmond, Va. Institute of Indust. Resch., Inc., Wash., D. C. Moore &amp; Co., W. E., Pittsburgh, Pa. Pittsburgh Testing Laboratory, Pittsburgh, Pa. Peirce &amp; Fairley, Blytheville, Ark.

## LANDSCAPE.

Burnap, Geo., Washington, D. C. Hoffman, Leon, Atlanta, Ga.

## LEVEES.

Moore &amp; Co., W. E., Pittsburgh, Pa. Peirce &amp; Fairley, Blytheville, Ark.

## LIGHTING.

Blylesby &amp; Co., H. M., Chicago, Ill. Ford, Bacon &amp; Davis, New York, N. Y. McCrary &amp; Co., J. B., Atlanta, Ga. Wiley &amp; Wilson, Lynchburg, Va.

## MECHANICAL.

Arnold Co., The, Chicago, Ill. Dixie Engineering &amp; Insulating Co., Atlanta, Ga. Friend &amp; Webs, New Orleans, La. Fuller Engineering Co., Allentown, Pa. Lide, Martin J., Birmingham, Ala. Meade &amp; Co., Richard K., Baltimore, Md. Moore &amp; Co., W. E., Pittsburgh, Pa. Tucker &amp; Laxton, Charlotte, N. C. Wiley &amp; Wilson, Lynchburg, Va.

## METALLURGICAL.

Guernsey &amp; Co., John B., Roanoke, Va. Meade &amp; Co., Richard K., Baltimore, Md. Mineral Corporation of America, Inc., New York.

## MINING.

Brackett, F. Ernest, Cumberland, Md. Clark &amp; Krebs, Charleston, W. Va. Guernsey &amp; Co., John B., Roanoke, Va. Hall &amp; Sons, B. M., Atlanta, Ga. International Conveyor Corp., The, Wash., D. C. Johnston, Jr., A. Langstaff, Richmond, Va. Mineral Corporation of America, Inc., New York.

## MUNICIPAL.

Clark &amp; Krebs, Charleston, W. Va. Dow &amp; Smith, New York, N. Y. Jennings-Lawrence Co., The, Columbus, Ohio. Knowles &amp; Morris, Pittsburgh, Pa. Moore &amp; Co., W. E., Pittsburgh, Pa. Peirce &amp; Fairley, Blytheville, Ark.

## PAVING AND ROADS.

Blylesby &amp; Co., H. M., Chicago, Ill. Day &amp; Zimmerman, Inc., Philadelphia, Pa. Ford, Bacon &amp; Davis, New York, N. Y. Klinear &amp; Co., W. S., New York, N. Y. Moore &amp; Co., W. E., Pittsburgh, Pa. Peirce &amp; Fairley, Blytheville, Ark. White, Gilbert C., Durham, N. C.

## PUBLIC SERVICE PROPERTIES.

Blylesby &amp; Co., H. M., Chicago, Ill. Day &amp; Zimmerman, Inc., Philadelphia, Pa. Ford, Bacon &amp; Davis, New York, N. Y. Klinear &amp; Co., W. S., New York, N. Y. Moore &amp; Co., W. E., Pittsburgh, Pa. Peirce &amp; Fairley, Blytheville, Ark.

## REFRIGERATING.

Brooks Engineering Co., C. L., Moultrie, Ga. Dixie Engineering &amp; Insulating Co., Atlanta, Ga.

## REINFORCED CONCRETE.

(Bridges, Buildings, etc.) Concrete-Steel Engr. Co., New York, N. Y. Concrete-Steel Bridge Co., The, Clarksburg, W. Va. Foundation Co., The, New York, N. Y. Freedland-Klyce Engr. Co., Nashville, Tenn. Gardner &amp; Howe, Memphis, Tenn.

Klinear &amp; Co., W. S., New York, N. Y.

Luton, Daniel B., Indianapolis, Ind.

McKinney Const. Co., John T., Lynchburg, Va.

Mende &amp; Co., Richard K., Baltimore, Md.

Rust Engineering Co., The, Pittsburgh, Pa.

Savannah Eng. &amp; Const. Co., Savannah, Ga.

Tucker &amp; Laxton, Charlotte, N. C.

White Companies, J. G., New York, N. Y.

Wiley &amp; Wilson, Lynchburg, Va.

SEWERAGE AND WATER-WORKS.

Black &amp; Veatch, Kansas City, Mo. Blylesby &amp; Co., H. M., Chicago, Ill. Ford, Bacon &amp; Davis, New York, N. Y. Jennings-Lawrence Co., The, Columbus, O. Knowles, Morris, Pittsburgh, Pa.

McKinney Const. Co., John T., Lynchburg, Va. Moore &amp; Co., W. E., Pittsburgh, Pa. White Companies, J. G., New York, N. Y. White, Gilbert C., Durham, N. C. Wiley &amp; Wilson, Lynchburg, Va.

## STEEL WORK AND ROLLING MILLS.

Smythe Co., The, S. R., Pittsburgh, Pa.

## STRUCTURAL STEEL.

Freeland-Klyce Engr. Co., Nashville, Tenn. Hedrick &amp; Hedrick, Kansas City, Mo. Shearer, C. E., Memphis, Tenn.

## ENGINES.

## COMPRESSED AIR.

Dake Engine Co., Grand Haven, Mich.

## GAS AND GASOLINE.

American-Blakeslee Mfg. Co., Birmingham, Ala. Cooper, C. E., Mt. Vernon, Ohio. De La Vergne Machine Co., New York, N. Y. Foss Gas Engine Co., Springfield, Ohio. Mietz Corp., August, New York, N. Y. Power Mfg. Co., The, Marion, Ohio. St. Mary's Oil Engine Co., St. Charles, Mo. Washington Pump &amp; Mch. Co., Oil City, Pa. Novo Engine Co., Lansing, Mich.

## KEROSENE.

American-Blakeslee Mfg. Co., Birmingham, Ala. Novo Engine Co., Lansing, Mich.

## OL.

Baltimore Oil Engine Co., Baltimore, Md.

Buckeye Machine Co., The, Lima, Ohio.

Chicago Pneumatic Tool Co., Chicago, Ill.

Creston Machine Co., Springfield, Ohio.

Frost Gas Engine Co., Springfield, Ohio.

Mietz Corp., August, New York, N. Y.

Munie Oil Engine Co., Munie, Ohio.

National Transit Pump &amp; Mch. Co., Oil City, Pa.

Power Mfg. Co., The, Marion, Ohio.

St. Mary's Oil Engine Co., St. Charles, Mo.

Washington Pump &amp; Mch. Corp., New York, N. Y.

## STEAM.

Allis-Chalmers Mfg. Co., Milwaukee, Wis.

Ametek Iron Works, Oswego, N. Y.

Ball Engine Co., Erie, Pa.

Buffalo Forge Co., Buffalo, N. Y.

Clark Bros. Co., Olean, N. Y.

Cooper Co., C. &amp; G., Mt. Vernon, Ohio.

Erie Pump &amp; Engine Co., Medina, N. Y.

Harris Bros. Co., Chicago, Ill.

Hardie-Tynes Mfg. Co., Birmingham, Ala.

Houston Steam &amp; Gas Co., Cincinnati, O.

Lambard Iron Works, Augusta, Ga.

Mecklenburg Iron Works, Charlotte, N. C.

Morris Machine Works, Baldwinville, N. Y.

Murray Iron Works Co., Burlington, Iowa.

National Transit Pump &amp; Mch. Co., Oil City, Pa.

Power Mfg. Co., The, Marion, Ohio.

Schofield Iron Works, Macon, Ga.

Vilter Mfg. Co., Milwaukee, Wis.

## TURBINE.

Allis-Chalmers Mfg. Co., Milwaukee, Wis.

Baldwin-Lima-Hamilton Corp., Philadelphia, Pa.

Bentley &amp; Bowles, New Haven, Conn.



## OILS. (Lubricating, etc.)

Albany Lubricating Co., New York, N. Y.  
Borne, Scrymser Co., New York, N. Y.  
Coker Co., Tulsa Okla.  
Gulf Refining Co., Pittsburgh, Pa.  
Robinson & Son Co., Wm. C., Baltimore, Md.  
Standard Oil Co. of Louisiana, Baton Rouge, La.  
Swan & Finch Co., New York, N. Y.  
Texas Co., The, New York, N. Y.

## OIL WELL MACHINERY.

Cook, A. D., Lawrenceburg, Ind.  
Keystone Pipe & Supply Co., Butler, Pa.  
Lucey Mfg. Co., New York, N. Y.  
Williams Bros., Ithaca, N. Y.

## ORE WASHING MACHINERY.

Davis Foundry & Machine Works, Rome, Ga.  
McLanahan Stone Mch. Co., Hollidaysburg, Pa.

## ORNAMENTAL IRON WORKS.

Bolles Iron & Wire Wks., J. E., Detroit, Mich.  
Chattanooga R.R. & Fdy. Co., Chattanooga, Tenn.  
Dexter Metal Mfg. Co., Camden, N. J.  
Dow Wire & Iron Works, Inc., Louisville, Ky.  
Newman Mfg. Co., The, Cincinnati, Ohio.  
Page Steel & Wire Co., Adrian, Mich.  
Roanoke Iron & Bridge Wks., Inc., Roanoke, Va.  
Shead Architectural Iron Wks., Louisville, Ky.

## OXYGEN.

Linde Air Products Co., The, New York, N. Y.

## OXY-ACETYLENE WELDING AND CUTTING OUTFIT AND SUPPLIES.

Imperial Brass Mfg. Co., Chicago, Ill.

## PACKING HOUSE APPARATUS.

Ottemelner Bros., Baltimore, Md.

## PACKING. (Asbestos, Metallic, Rubber, Leather, etc.)

Booth Felt Co., Inc., Brooklyn, N. Y.  
Cincinnati Rubber Mfg. Co., Cincinnati, Ohio.  
Dominion Asbestos & Insul. Corp., New York, N. Y.  
Goodrich Co., B. F., Akron, Ohio.  
Goodyear Tire & Rubber Co., Akron, Ohio.  
Graton & Knight Mfg. Co., Worcester, Mass.  
Johns-Manville Co., H. W., New York, N. Y.  
Power Specialty Co., New York, N. Y.

## PAINT.

## METAL SURFACES.

Dixon Crucible Co., Joseph, Jersey City, N. J.  
Du Pont de Nemours & Co., E. I., Wilmington, Del.  
Longman & Martinez, New York, N. Y.  
Toch Bros., New York, N. Y.

## PAINTERS.

Arco Co., Cleveland, Ohio.  
Du Pont de Nemours & Co., E. I., Wilmington, Del.  
Longman & Martinez, New York, N. Y.  
Toch Bros., New York, N. Y.

## WATER. (For Interiors.)

Arco Co., Cleveland, Ohio.  
Longman & Martinez, New York, N. Y.

## PARTITIONS. (Metal, Wooden, Rolling.)

David Lupton's Sons Co., Philadelphia, Pa.  
Detroit Steel Products Co., Detroit, Mich.

## PATENT ATTORNEYS.

Brown, Eugene C., Washington, D. C.  
Chandee & Chandee, Washington, D. C.  
Evans & Co., Victor J., Washington, D. C.  
Whitaker, Norman T., Washington, D. C.

## PAVING BLOCKS. (Wood.)

Crescoated Materials Co., Inc., New Orleans, La.  
Republic Crescoing Co., Indianapolis, Ind.  
Southern Crescoing Co., Ltd., Slidell, La.  
Southern Paving Const. Co., Chattanooga, Tenn.  
Southern Wood Preserving Co., Atlanta, Ga.

## PAVING BRICK.

Standard Brick Co., Macon, Ga.

## PAVING MIXERS. (Concrete.)

American Cement Mch. Co., Inc., Keokuk, Iowa.  
Jaeger Machine Co., The, Columbus, Ohio.  
Standard Scale & Supply Co., Pittsburgh, Pa.

## PAVING PLANTS. (Asphalt.)

Cummer & Son Co., F. D., Cleveland, Ohio.

## PERFORATED METAL.

Caldwell & Son Co., H. W., Chicago, Ill.  
Erdle Perforating Co., Rochester, N. Y.  
Harrington & King Perforating Co., Chicago, Ill.  
Hendricks Mfg. Co., The, Carbondale, Pa.  
Manhattan Perforated Metal Co., New York, N. Y.  
Mundt & Sons, Charles, Jersey City, N. J.

## PETROLEUM REFINERS.

Caldwell & Son Co., H. W., Chicago, Ill.  
Erdle Perforating Co., Rochester, N. Y.  
Harrington & King Perforating Co., Chicago, Ill.  
Hendricks Mfg. Co., The, Carbondale, Pa.  
Manhattan Perforated Metal Co., New York, N. Y.  
Mundt & Sons, Charles, Jersey City, N. J.

## PHOSPHATE MACHINERY.

American Process Co., New York, N. Y.  
Bailey-Levy Co., The, Charleston, S. C.  
K-B Pulverizer Co., New York, N. Y.  
McLanahan Stone Mach. Co., Hollidaysburg, Pa.  
Valk & Murdoch Co., Charleston, S. C.

## PIG IRON.

Alabama Co., The, Birmingham, Ala.  
Bethlehem Steel Co., South Bethlehem, Pa.  
Brill Hill Steel Co., Youngstown, Ohio.  
Hammond-Byrd Co., The, Birmingham, Ala.  
La Belle Iron Works, Steubenville, Ohio.  
Republic Iron & Steel Co., Youngstown, Ohio.  
Tennessee Coal, Iron & R. R. Co., Birmingham, Ala.

## PILING. (Creosoted.)

American Cresoated Works, New Orleans, La.  
Cresoated Material Co., Inc., New Orleans, La.  
Southern Cresoated Co., Ltd., Slidell, La.  
Southern Paving Const. Co., Chattanooga, Tenn.

## PILLION BLOCKS.

Caldwell Co., W. E., Louisville, Ky.  
Goldens' Foundry & Machine Co., Columbus, Ga.  
Medart Patent Pulley Co., St. Louis, Mo.

## SHAFT.

Bond Fdy. & Mch. Co., Manheim, Pa.

## PINE. (Southern Long Leaf.)

Great Southern Lumber Co., Bogalusa, La.

## PIPE.

La Belle Iron Works, Steubenville, Ohio.  
National Tube Co., Pittsburgh, Pa.  
Youngstown Sheet & Tube Co., Youngstown, Ohio.

## CAST IRON.

American Cast Iron Pipe Co., Birmingham, Ala.  
Cast Iron Pipe & Publicity Bureau, New York, N. Y.  
Central Foundry Co., New York, N. Y.  
Glamorgan Pipe & Foundry Co., Lynchburg, Va.  
National Cast Iron Pipe Co., Birmingham, Ala.  
U. S. Cast Iron Pipe & Fdy. Co., Burlington, N. J.  
Wood & Co., R. D., Philadelphia, Pa.

## COIL.

Frick Co., Waynesboro, Pa.

## RIVETED.

Aebnroth & Root Mfg. Co., Newburgh, N. Y.  
New Bern I. Wks. & Co., Inc., New Bern, N. C.

## SECOND-HAND.

Cassel & Co., B., Chattanooga, Tenn.  
Griffith, James F., Philadelphia, Pa.  
Keystone Pipe & Supply Co., Butler, Pa.  
Marine Metal & Supply Co., New York, N. Y.  
Glo Pipe Co., Findlay, Ohio.

Peerless Iron Pipe Exe., Inc., New York, N. Y.  
Pipe & Contractors' Supply Co., New York, N. Y.

## SPIRAL RIVETED.

Aebnroth & Root Mfg. Co., Newburgh, N. Y.  
American Spiral Pipe Works, Chicago, Ill.

## SPIRAL STEEL.

Standard Spiral Pipe Works, Chicago, Ill.

## STEEL.

National Tube Co., Pittsburgh, Pa.  
La Belle Iron Works, Steubenville, Ohio.  
Republic Iron & Steel Co., Youngstown, Ohio.  
Youngstown Sheet & Tube Co., Youngstown, Ohio.

## WOOD.

Michigan Pipe Co., Bay City, Mich.  
Pacific Tank & Pipe Co., San Francisco, Cal.  
Standard Wood Pipe Co., Williamsport, Pa.

Wyckoff & Son Co., A., Elmira, N. Y.

## WROUGHT IRON.

Youngstown Sheet & Tube Co., Youngstown, Ohio.

## PIPS &amp; FITTINGS.

(Acid Proof.)

Duriron Casting Co., Dayton, Ohio.

## PIPE COVERS.

Magnesia Association of America, Phila., Pa.

## PIPE FITTINGS.

American Cast Iron Pipe Co., Birmingham, Ala.

## STEEL.

Youngstown Sheet & Tube Co., Youngstown, Ohio.

## PIPE UNIONS AND JOINTS.

Dart Mfg. Co., E. M., Providence, R. I.

## PISTON RINGS.

(Compressors, Engines, etc.)

The Everlight Piston Ring Co., St. Louis, Mo.

## PITCH.

Barrett Co., New York, N. Y.

## PLATES.

STEEL.

Allegheny Steel Co., Pittsburgh, Pa.  
Cincinnati Iron & Steel Co., Cincinnati, Ohio.  
Midvale Steel & Ordnance Co., Philadelphia, Pa.  
Wood Iron & Steel Co., Alan, Philadelphia, Pa.

## POLES.

Northrup & Sons, C. E., Galatin, Tenn.

## POLES. (Creosoted.)

American Creosoted Works, New Orleans, La.  
Crescoated Material Co., Inc., New Orleans, La.

## SOUTHERN POLES.

Southern Creosoting Co., Ltd., Slidell, La.

## SOUTHERN WOOD PRESERVING CO.

Atlanta, Ga.

## POLISHING MACHINERY. (Wheels, Blocks.)

POSTS. (Cast Iron.) (Railway and Highway.)

Northrup & Sons, C. E., Galatin, Tenn.

U. S. Cast Iron Pipe & Fdy. Co., Burlington, N. J.

## POST CAPS.

Van Dorn Iron Works Co., The, Cleveland, Ohio.

## POWER TRANSMISSION MACHINERY.

Alvey-Ferguson Co., Inc., Cincinnati, Ohio.

Bailey-Levy Co., The, Charleston, S. C.

Bond Fdy. & Mch. Co., Manheim, Pa.

Caldwell & Son Co., H. W., Chicago, Ill.

Caldwell Co., W. E., Louisville, Ky.

Cresson-Morris Co., Philadelphia, Pa.

Dodge Sales & Engr. Co., Mishawaka, Ind.

Medart Patent Pulley Co., St. Louis, Mo.

Morse Chain Co., Ithaca, N. Y.

Schofield Iron Works, Macon, Ga.

Smith-Courtney Co., Richmond, Va.

Standard Pressed Steel Co., Philadelphia, Pa.

The American Pulley Co., Philadelphia, Pa.

Wolf Co., The, Chambersburg, Pa.

Wood's Sons, T. B., Chambersburg, Pa.

Wood's Sons Co., T. B., Chambersburg, Pa.

Wood's

**ROOFING AND SIDING.** (Metal.) American Sheet & Tin Plate Co., Pittsburgh, Pa. American Sheet Co., Canton, Ohio. Beaver Hill Steel Co., Youngstown, Ohio. Bright Metal Roofing Co., Philadelphia, Pa. Bright Metal Co., The, Cincinnati, Ohio. Edwards Mfg. Co., Cincinnati, Ohio. Franklin Metal Culvert Co., Nashville, Tenn. Tennessee Metal Culvert Co., Warren, Ohio. Lamb Steel Co., Warren, Ohio. Walker-Glessner Co., Wheeling, W. Va. Youngstown Sheet & Tube Co., Youngstown, Ohio

**ROOFING TILES.** Coldwell-Celadon Co., Chicago, Ill.

**ROPE.** Manila, SISAL, HEMP, ETC. Cederick & Bascom Co., St. Louis, Mo. Columbia Rope Co., Auburn, N. Y. Number & Whyte, Kenosha, Wis. Sherry Co., New York, N. Y.

**WITCHES.** Pittsford, A. Chamberlain, Pa. Flat, Gandy, Gandy, Pittsford, N. Y. N. Y. S. St. Louis, Mo.

**ROPE DRIVES.** Darrow & Son Co., H. W., Chicago, Ill. Dreyer Steel & Wire Co., Chicago, Ill. Green-Morris Co., Philadelphia, Pa. Judge Sales & Engineering Co., Mishawaka, Ind. Jones & Laughlin Steel Co., Pittsburgh, Pa. Dreyer Patent Pulley Co., St. Louis, Mo. Waterbury Co., New York, N. Y.

**RUBBER GOODS.** Cincinnati Rubber Mfg. Co., Cincinnati, Ohio. Goodrich Co., B. F., Akron, Ohio. Goodyear Tire & Rubber Co., Akron, Ohio.

**RUGS.** (Oriental.) Mitchell, Vance Co., Inc., New York, N. Y.

**BUTTER.** Bowwood. Larkin Rule Co., Saginaw, Mich. Spring Joint Wood. Larkin Rule Co., Saginaw, Mich.

**STEEL.** Larkin Rule Co., Saginaw, Mich. Barrett Co., L. S., Athol, Mass.

**SAFES AND VAULTS.** National Safe Co., Cleveland, Ohio. Octo Safe & Lock Co., York, Pa.

**LAND.** Angel Sand & Gravel Co., Baltimore, Md. Cook & Laurie Gravel Co., Montgomery, Ala. Cook Fuel & Supply Co., Macon, Ga.

**LAND AND GRAVEL PLANT EQUIPMENT.** Dwyer Mfg. Co., Columbus, Ohio. Webster Mfg. Co., Tiffin, Ohio.

**HAND DRYERS.** Bartlett & Snow Co., The C. O., Cleveland, Ohio. American Process Co., New York, N. Y. Biley Foundry & Mfg. Co., Ripley, Ohio. Baggs-Coles Engineering Co., York, Pa.

**HAP STAIN PREVENTIVE.** Bartlett & Snow Co., New York, N. Y.

**SAKE CHAIN.** Niagara Falls Metal Stamping Works, Niagara Falls, N. Y.

**SAKE OPERATING APPARATUS.** Detroit Steel Products Co., Detroit, Mich.

**SCALES.** Standard Scale & Supply Co., Pittsburgh, Pa.

**SCHOOLS.** (Correspondence.) Alexander Hamilton Institute, New York, N. Y.

**SCRAPES.** (Power.) Gossman Bros., Chicago, Ill.

**SCRAP IRON AND STEEL.** Clegg & Co., B., Chattanooga, Tenn. Franklin Steel Co., Philadelphia, Pa. Southern Scrap Iron & Metal Co., Kan. City, Mo. Southern Iron & Metal Co., New Orleans, La. United Iron & Steel Co., New York, N. Y. Weller Co., Inc., H. C., Jacksonville, Fla. Wad & Co., Inc., A. M., Philadelphia, Pa.

**SCREENS.** (Fly, Window and Door.) Ladd-Saylor Wire Co., St. Louis, Mo. New Jersey Wire Cloth Co., Trenton, N. J.

**SCREENS.** (Sand, Gravel, Stone, Coal, Ore, etc.) Dreyer Foundry & Machine Works, Rome, Ga. Perfcoating Co., Rochester, N. Y. Hendrick Mfg. Co., Columbus, Ohio. Ladd-Saylor Wire Co., Philadelphia, Pa. Melancon-Stone Mfg. Co., Hollidaysburg, Pa. Hunt & Son, Charles, Jersey City, N. J. New Jersey Wire Cloth Co., Trenton, N. J. Triple Eng. & Mfg. Co., Allentown, Pa. Webster Mfg. Co., Tiffin, Ohio. Wright Wire Co., The, Worcester, Mass.

**SCREENINGS.** (For Concrete and Road Constr.) American Ballast Co., Knoxville, Tenn.

**SEWING MACHINES.** Paul, Henry, Jr., New York, N. Y.

**SEWING MACHINE PRODUCTS.** American-Blaikes Mfg. Co., Birmingham, Ala. Progressive Mfg. Co., Torrington, Conn. St. Louis Sewing Co., St. Louis, Mo. Standard Pressed Steel Co., Philadelphia, Pa.

**SCREWS.** Cup and Set. St. Louis Screw Co., St. Louis, Mo.

**MACHINES.** Progressive Mfg. Co., Torrington, Conn. Standard Pressed Steel Co., Philadelphia, Pa. Stinson Co., Edwin B., New York, N. Y.

**SAFETY SET.**

**HAN PROTECTOR.** (Boiler.) National Boiler Protector Co., Dayton, Ohio.

**SHATING.** (Church, School, Park, etc.) American Seating Co., Chicago, Ill.

**SEPARATING MACHINERY.** (Ore.) Brainerd Mohr, Co., W. O., Nashville, Tenn.

**SEPARATORS.** (Dust.) Buffalo Forge Co., Buffalo, N. Y. Raymond Bros. Impact Pulv. Co., Chicago, Ill.

**SEPTIC TANKS.** Cement Products Co., Wilmington, N. C.

**SEWAGE DISPOSAL PLANT.** Cement Products Co., Wilmington, N. C.

**SEWAGE-PUMPING AND DISPOSAL APPARATUS.** Pacific Flush-Tank Co., New York, N. Y.

**SEWER JOINT COMPOUNDS.** Pacific Flush-Tank Co., New York, N. Y.

**SEWER PIPE.** VITRIFIED. Asher Fireproofing Co., Washington, D. C. Bannon Pipe Co., P., Louisville, Ky. Cannelton Sewer Pipe Co., Cannelton, Ind. Owensboro Sewer Pipe Co., Owensboro, Ky. Stevens Bros. & Co., Stevens Pottery, Ga.

**SHAFTING.** Canfield Forge Co., Camden, N. J.

**COLD ROLLED STEEL.** Aborn Steel Co., New York, N. Y. American Steel & Wire Co., Chicago, Ill. Ward's Sons Co., Edgar T., Philadelphia, Pa.

**POLISHED STEEL.** Aborn Steel Co., New York, N. Y. Jones & Laughlin Steel Co., Pittsburgh, Pa. Medart Patent Pulley Co., St. Louis, Mo. Republic Iron & Steel Co., Youngstown, Ohio. Union Drawn Steel Co., Beaver Falls, Pa.

**SHARPENING STONES.** Vitrified Wheel Co., Westfield, Mass.

**SHEET BARS AND COPPER.** McKenna Brass & Mfg. Co., Inc., Pittsburgh, Pa.

**SHEET METAL WORK.** Laclede Iron Works, St. Louis, Mo. National Blow Pipe & Mfg. Co., New Orleans, La. Niagara Falls Metal Stamping Works, Niagara Falls, N. Y.

**SHREVEPORT BLOW PIPE & SHEET IRON WORKS, INC.** Shreveport Blow Pipe & Sheet Iron Works, Inc., Shreveport, La.

**SHREVEPORT METAL CULVERT CO., NASHVILLE, TENN.**

**SHREVEPORT METAL WORKING MACHINERY.** Bliss Co., E. W., Brooklyn, N. Y. Simpson Co., Edwin B., New York, N. Y.

**SHEET STEEL AND IRON.** American Sheet & Tin Plate Co., Pittsburgh, Pa. Butler Hill Steel Co., Youngstown, Ohio. Cincinnati Iron & Steel Co., Cincinnati, Ohio. La Belle Iron Works, Steubenville, Ohio. Republic Iron & Steel Co., Youngstown, Ohio. Tennessee Coal, Iron & R. R. Co., Birm'ham, Ala. Trumbull Steel Co., Warren, Ohio. Union Drawn Steel Co., Beaver Falls, Pa.

**SHELVING.** (Steel) [Vanit, Store, etc.] David Lupton's Sons Co., Philadelphia, Pa. Dexter Metal Mfg. Co., Camden, N. J. Edwards Mfg. Co., Cincinnati, Ohio.

**SHINGLES.** (Metal.) Berger Mfg. Co., Canton, Ohio. Cortright Metal Roofing Co., Philadelphia, Pa. Hyndman Roofing Co., Cincinnati, Ohio.

**SHIPBUILDING.** Foundation Co., The, New York, N. Y.

**SHIPBUILDING PLANTS CONSTRUCTED.** Foundation Co., The, New York, N. Y.

**SHIP CHANDLERY.** Topping Bros., New York, N. Y.

**SHOVELS.** (Steam, Gas, Electric and Power.) Ball Engine Co. (Erie Steam Shovel Co.) Erie, Pa. Theu Automatic Shovel Co., Lorain, Ohio.

**SHUTTERS.** IRON. Bolles Iron & Wire Works, J. E., Detroit, Mich.

**STEEL ROLLING.** Kinner Mfg. Co., Columbus, Ohio.

**SIGNS.** (Street and Road.) Union Iron Products Co., East Chicago, Ind.

**SILOS.** (Metal.) Canton Culvert & Silo Co., Canton, Ohio. Tennessee Metal Culvert Co., Nashville, Tenn.

**SIZING.** (For Textile Mills.) Wolf & Co., Jacques, Passaic, N. J.

**SKEP HOISTS.** Bartlett & Snow Co., The, C. O., Cleveland, Ohio.

**SKYLIGHTS.** Chattanooga Roof & Dry Co., Chattanooga, Tenn. Edwards Mfg. Co., Cincinnati, Ohio. Hires-Turner Glass Co., Washington, D. C. Lupton's Sons Co., David, Philadelphia, Pa.

**SKYLIGHTS.** (Puttyless.) Aspremont Company, Pittsburgh, Pa.

**SLAG.** Birmingham Slag Co., Birmingham, Ala.

**SLUICE GATES AND APPLIANCES.** Coldwell-Wilcox Co., Newburgh, N. Y.

**SPELTER.** New Jersey Zinc Co., New York, N. Y.

**SPIKES.** (Railroad, Ship.) Ames & Co., W. Jersey City, N. J. Bethlehem Steel Co., South Bethlehem, Pa. Hoffman & Co., Inc., R. C., Baltimore, Md. Topping Bros., New York, N. Y.

**SPRINKLER TANK.** (Steel.) Chicago Bridge & Iron Works, Chicago, Ill.

**SPRINKLERS.** (Automatic.) Globe Automatic Sprinkler Co., Philadelphia, Pa.

**SPRING COILING MACHINERY.** Sleeper & Hartley, Inc., Worcester, Mass.

**SPRINGS.** (Machinery, Railway, Spiral.) Cary Spring Works, New York, N. Y. Raymond Mfg. Co., Ltd., Corry, Pa.

**SPROCKET RIMS.** (Adjustable for Valves.) Standard Iron & Wire Wks., Chattanooga, Tenn.

**STAMP MILLS.** Mecklenburg Iron Works, Charlotte, N. C.

**STAMPS.** (Brass, Rubber.) Baltimore Office Supply Co., Inc., Baltimore, Md. Dorman Co., J. F. W., Baltimore, Md.

**STANDPIPES.** Chattanooga Boiler & Tank Co., Chat'n'g, Tenn. Chicago Bridge & Iron Works, Chicago, Ill. Des Moines Bridge & Iron Co., Des Moines, Ia. Pittsburgh Iron Works, Augusta, Ga. Schofield Iron Works, Macon, Ga.

**STOCK CERTIFICATES, BONDS AND SEALS.** Baltimore Office Supply Co., Inc., Baltimore, Md. Dorman Co., J. F. W., Baltimore, Md.

**STOKERS.** (Mechanical.) Babcock & Wilcox Co., New York, N. Y. Westinghouse Electric & Mfg. Co., Pittsburgh, Pa.

**STONE (Building).** Ind. LimeStone Quarrymen's Assn., Bedford, Ind.

**STONE AND GRAVEL PLANT EQUIPMENT.** Weller Mfg. Co., Chicago, Ill.

**STORAGE BATTERIES.** Edison Storage Battery Co., Orange, N. J. Electric Storage Battery Co., Philadelphia, Pa.

**STORE FRONTS.** (Complete.) International Steel & Iron Co., Evansville, Ind.

**STORE FRONTS.** (Glass.) Hires-Turner Glass Co., Washington, D. C.

**STOVE TRIMMINGS.** Fanner Mfg. Co., The, Cleveland, Ohio.

**STRAPPING LEATHER.** Graton & Knight Mfg. Co., Worcester, Mass.

**STRUCTURAL STEEL AND IRON.** American Bridge Co., New York, N. Y. Belmont Iron Works, Philadelphia, Pa. Bethlehem Steel Co., South Bethlehem, Pa. Carnegie Steel Co., Pittsburgh, Pa.

**CHAMPION BRIDGE CO., WILMINGTON, OHIO.** Chesapeake Iron Works, Baltimore, Md. Cincinnati Iron & Steel Co., Cincinnati, Ohio. Des Moines Bridge & Iron Co., Des Moines, Ia. Dietrich Bros., Baltimore, Md.

**HOFFMAN & CO., INC., R. C., BALTIMORE, MD.** Interstate Steel & Wire Co., Evansville, Ind. Jones & Laughlin Steel Co., Pittsburgh, Pa. Lackawanna Steel Co., Lackawanna, N. Y. Memphis Steel Const., Pittsburgh, Pa. Midvale Steel & Ordnance Co., Philadelphia, Pa. Phoenix Iron Co., Philadelphia, Pa. Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa. Reilly Mfg. Co., J. J., Louisville, Ky. Republic Iron & Steel Co., Youngstown, Ohio. Richmond Structural Steel Co., Richmond, Va. Roanoke Iron & Bridge Works, Roanoke, Va. Sneed Architectural Iron Works, Louisville, Ky. Steel Products Co., The, Savannah, Ga. Tennessee Coal, Iron & R. R. Co., Birm'ham, Ala. Vincennes Bridge Co., Vincennes, Ind. Virginia Bridge & Iron Co., Roanoke, Va. Walsh & Weldner Boiler Co., Chattanooga, Tenn.

**SULPHUR.** Freeport Sulphur Co., Freeport, Texas.

**SULPHURIC ACID.** Davison Chemical Co., Baltimore, Md. Du Pont de Nemours & Co., E. I., Wilm'ton, Del.

**SUPER-HEATERS.** (Steam.) Babcock & Wilcox Co., New York, N. Y. Power Specialty Co., New York, N. Y.

**SURVEYING INSTRUMENTS.** Weber & Co., F., Philadelphia, Pa.

**SWINGING ENGINES.** Duke Engine Co., Grand Haven, Mich.

**SWITCHBOARDS, SWITCHES, ETC.** General Electric Co., Schenectady, N. Y. West'house Elec. & Mfg. Co., East Pittsburgh, Pa.

**SWITCHSTANDS.** Bethlehem Steel Co., South Bethlehem, Pa. Weir Frog Co., Cincinnati, Ohio.

**TACKLE BLOCKS.** (For Wire or Manila Rope.) Broderick & Bascom Rope Co., St. Louis, Mo. Topping Bros., New York, N. Y.

**TALC PRODUCTS.** De Soto Talc Co., Chatwirth, Ga. Harford Talc Co., Inc., The, Baltimore, Md.

**TANKS.** CORRUGATED METAL K. D. Tennessee Metal Culvert Co., Nashville, Tenn.

**LEAD LINE.** Hauser-Stander Tank Co., The, Cincinnati, Ohio.

**IRON AND STEEL.** American Bridge Co., New York, N. Y. American Water Softener Co., Philadelphia, Pa. Caldwell Co., Inc., W. E., Louisville, Ky. Case-Hedges Co., Chattanooga, Tenn. Chattanooga Boiler & Works Co., Chattanooga, Tenn. Chicago Bridge & Iron Works, Chicago, Ill. Des Moines Bridge & Iron Co., Des Moines, Iowa. Hartley Boiler Works, Montgomery, Ala. Hendricks Mfg. Co., Carbondale, Pa. Lombard Iron Works, Augusta, Ga. Lookout Boiler & Mfg. Co., Chattanooga, Tenn. Memphis Steel Const. Co., Pa., Pittsburgh, Pa. Midvale Steel & Ordnance Co., Philadelphia, Pa. Union Drawn Steel Co., Beaver Falls, Pa. Vanadum-Alloys Steel Co., Pittsburgh, Pa. Ward's Sons Co., Edgar T., Philadelphia, Pa.

**TOOL.** (High Speed.) Aborn Steel Co., New York, N. Y. International High Speed Steel Co., New York, N. Y.

**VANADIUM-ALLOYS STEEL CO., PITTSBURGH, PA.** Vanadium-Alloys Steel Co., Pittsburgh, Pa. Ward's Sons Co., Edgar T., Philadelphia, Pa.

**TOOL.** (High Speed.) Aborn Steel Co., New York, N. Y. Bethlehem Steel Co., South Bethlehem, Pa. International High Speed Steel Co., New York, N. Y. McKenna Brass & Mfg. Co., Inc., Pittsburgh, Pa. Union Drawn Steel Co., Beaver Falls, Pa. Vanadum-Alloys Steel Co., Pittsburgh, Pa. Ward's Sons Co., Edgar T., Philadelphia, Pa.

**VANADIUM.** Aborn Steel Co., New York, N. Y. Carnegie Steel Co., Pittsburgh, Pa. Union Drawn Steel Co., Beaver Falls, Pa. Vanadum-Alloys Steel Co., Pittsburgh, Pa.

**STEEL BUILDINGS.** DESIGNERS, BUILDERS. American Bridge Co., New York, N. Y. Belmont Iron Works, Philadelphia, Pa. Champion Bridge Co., Wilmington, Ohio. Clark Steel & Iron Works, Baltimore, Md. Des Moines Bridge & Iron Co., Des Moines, Iowa. International Steel & Iron Co., Evansville, Ind. Memphis Steel Const. Co., Pa., Pittsburgh, Pa. Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa. Scaife & Sons Co., Wm. B., Pittsburgh, Pa. Schofield Iron Works, Macon, Ga. Southern Boiler & Tank Works, Memphis, Tenn. Struthers-Wells Co., Warren, Pa. Tennessee Metal Culvert Co., Nashville, Tenn. Virginia Bridge & Iron Co., Roanoke, Va. Walsh & Weldner Boiler Co., Chattanooga, Tenn. Westinghouse Traction Brake Co., Wilmerding, Pa.

**PICKLING.** Hauser-Stander Tank Co., The, Cincinnati, Ohio.

**WOOD.** Caldwell Co., Inc., W. E., Louisville, Ky. Davis & Son, G. M., Palatka, Fla. Hauser-Stander Tank Co., The, Cincinnati, Ohio. Pacific Tank & Pipe Co., San Francisco, Cal.

**TAPES.** (Measuring.) Lukoff Rule Co., Saginaw, Mich. Starrett Co., L. S., Athol, Mass.

**TELEPHONES.** (Supplies, Equipment.) Piedmont Electric Co., Asheville, N. C. Western Electric Co., New York, N. Y.

**TELEPHONE SERVICE.** American Telephone & Telegraph Co.

**THREADING AND TAPPING MACHINERY.** Webster & Perks Tool Co., The, Springfield, Ohio.

**THRESHERS.** Cardwell Machine Co., Richmond, Va.

**TIERING MACHINES.** (Portable.) Economy Engineering Co., Chicago, Ill.

**TILE.** DRAIN. Northwestern Steel & Iron Wks., Eau Claire, Wis. Oconee Brick & Tile Co., Milledgeville, Ga. FLOOR, WALL, MANTEL, ETC. Amer. Enam. Brick & Tile Co., New York, N. Y. Hood Brick Co., B. Mifflin, Atlanta, Ga. National Mosaic Tile Co., Inc., Mobile, Ala.

**STRUCTURAL.** Oconee Brick & Tile Co., Milledgeville, Ga.

**TILE SLABS.** Ludowici-Celadon Co., Chicago, Ill.

**TIMBERS.** (Creosoted.) American Creosote Works, New Orleans, La. Republic Creosoting Co., Indianapolis, Ind.

**TIME RECORDERS.** Eno Clock Co., Boston, Mass. Newman Clock Co., New York, N. Y.

**TIN AND TERNE PLATES.** American Sheet & Tin Plate Co., Pittsburgh, Pa. Liberty Steel Co., Warren, Ohio. Trumbull Steel Co., Warren, Ohio.

**TOBACCO MACHINERY.** Buckeye Iron & Brass Works, Dayton, Ohio. Cardwell Machine Co., Richmond, Va. Raymond Mfg. Co., Ltd., Corry, Pa.

**TOOLS.** MACHINISTS. Western Tool & Mfg. Co., Springfield, Ohio. MECHANICAL. Starrett Co., L. S., Athol, Mass. PNEUMATIC. Chicago Pneumatic Tool Co., Chicago, Ill. Independent Pneumatic Tool Co., Chicago, Ill. Ingersoll-Rand Co., New York, N. Y.

**TOOLHOLDERS.** Western Tool & Mfg. Co., Springfield, Ohio.

**TORCHES.** Wall Mfg. Supply Co., P., Allegheny, Pa.

**TOWERS.** ELECTRIC TRANSMISSION. American Bridge Co., New York, N. Y. STEEL AND WOOD. Caldwell Co., Inc., W. E., Louisville, Ky. Chattanooga Boiler & Tank Co., Chat'n'g, Tenn. Chesapeake Iron Works, Baltimore, Md. Des Moines Bridge & Iron Co., Des Moines, Ia. Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa. Walsh & Weldner Boiler Co., Chattanooga, Tenn.

**TRAMWAY.** OVERHEAD. Spindel, J. G., Reading, Pa. Yale & Towne Mfg. Co., New York, N. Y.

## TRAMWAY.

Wire Rope. American Steel & Wire Co., Chicago, Ill. Broderick & Bascom Rope Co., St. Louis, Mo. Caldwell & Son Co., H. W., Chicago, Ill. Waterbury Co., New York, N. Y.

## TRANSFORMERS.

General Electric Co., Schenectady, N. Y. Westhouse Elec. & Mfg. Co., East Pittsburgh, Pa.

## TRANSMISSION BEARINGS AND HANGERS.

Hyatt Roller Bearing Co., New York, N. Y.

## TRENCH MACHINERY.

Ball Engine Co. (Erie Steam Shovel Co.) Erie, Pa.

Buckeye Traction Ditcher Co., Findlay, Ohio.

Thew Automatic Shovel Co., Lorain, Ohio.

## TRUCKS.

Dry Kiln. Moore Dry Kiln Co., L., Jacksonville, Fla. Motor. (Gasoline.) Garford Motor Truck Co., Lima, Ohio.

General Motors Truck Co., Pontiac, Mich.

International Motor Co., New York, N. Y.

U. S. Motor Truck Co., Cincinnati, Ohio.

Platform, Freight, Mill, Factory, Etc. Chase Foundry & Mfg. Co., Columbus, Ohio.

Edwards Mfg. Co., Cincinnati, Ohio.

## TRUCK TIRES.

GoodYear Tire & Rubber Co., Akron, Ohio.

## TUBES.

(Boiler.) Allegheny Steel Co., Pittsburgh, Pa.

Cincinnati Iron & Steel Co., Cincinnati, Ohio.

Midvale Steel & Ordnance Co., Philadelphia, Pa.

National Tube Co., Pittsburgh, Pa.

## TUBE WELL STRAINERS.

Cook, A. D., Lawrenceburg, Ind.

## TUBING.

(Rubber.) Cincinnati Rubber & Mfg. Co., Cincinnati, Ohio.

GoodYear Tire & Rubber Co., Akron, Ohio.

## METAL.

Griffith, James F., Philadelphia, Pa.

La Belle Iron Works, Steubenville, Ohio.

Ward's Sons Co., Edgar T., Philadelphia, Pa.

## TURBINES.

Hydraulic. Davis Foundry & Machine Works, Rome, Ga.

Loffel & Co., James, Springfield, Ohio.

Smith Co., S., Morgan, York, Pa.

Trump Mfg. Co., The, Springfield, Ohio.

Wellman-Leverett-Morgan Co., The, Cleveland, O.

## STEAM.

Allis-Chalmers Mfg. Co., Milwaukee, Wis.

General Electric Co., Schenectady, N. Y.

Westhouse Elec. & Mfg. Co., East Pittsburgh, Pa.

## TURNTABLES.

American Bridge Co., New York, N. Y.

Virginia Bridge & Iron Co., Roanoke, Va.

## TWINE.

Columbia Rope Co., Auburn, N. Y.

## UNIONS.

Dart Mfg. Co., E. M., Providence, R. I.

UPHOLSTERING MATERIAL. (For Autos & Furniture.) DuPont Fabrikoid Co., Wilmington, Del.

## VACUUM PANS.

Birmingham Mch. & Fdry. Co., Birmingham, Ala.

In writing advertisers please mention Manufacturers' Record. Whenever you need any product not advertised, please tell us. We will find it for you.

## VALVES.

Bourbon Copper & Brass Wks., Cincinnati, O. Cincinnati Rubber & Mfg. Co., Cincinnati, Ohio. Columbian Iron Works, Chattanooga, Tenn. Crane Co., Chicago, Ill. Fitch Co., Waynesboro, Pa. Glamorgan Pipe & Fdry. Co., Lynchburg, Va. Goodyear Tire & Rubber Co., Akron, Ohio. Lunkelheimer Co., The, Cincinnati, Ohio. Vogt Mch. Co., Inc., Henry, Louisville, Ky. Westhouse Traction Brake Co., Wilmerding, Pa.

## VALVES.

ACID PROOF. Duriron Casting Co., Dayton, Ohio. Lunkelheimer Co., Cincinnati, Ohio.

## GAS REVERSING.

Morgan Construction Co., Worcester, Mass.

## VARNISH.

Arco Co., Cleveland, Ohio.

## VAULT DOORS.

National Safe Co., Cleveland, Ohio.

## VENEER CUTTING MACHINERY.

American Blakeslee Mfg. Co., Birmingham, Ala. Titus, E. E., Petersburg, Va.

## VENTILATING APPARATUS. (Engineers' and Contractors.)

Buffalo Forge Co., Buffalo, N. Y. Carrier Engineering Corp., New York, N. Y. Charge Fan Co., Kalamazoo, Mich. Skinner Bros. Mfg. Co., St. Louis, Mo.

## VENTILATORS.

(Roof.) Edwards Mfg. Co., Cincinnati, Ohio. Merchant & Evans Co., Philadelphia, Pa.

## VISES.

Hollands Manufacturing Co., Erie, Pa. Western Tool & Mfg. Co., Springfield, Ohio.

## WAGONS. (Dumb.)

Western Wheeled Scraper Co., Aurora, Ill.

## WAGON LOADERS.

Bonney Supply Co., Inc., Rochester, N. Y. Hulse Mfg. Co., Geo., New York, N. Y.

Jeffrey Mfg. Co., Columbus, Ohio.

Link-Belt Co., Philadelphia, Pa.

Portable Machinery Co., Inc., Passaic, N. J.

## WALL BOARD. (Walls, Ceilings, etc.)

Cornell Wood Products Co., Chicago, Ill.

## WALL PLUGS. (Galvanized.)

Niagara Falls Metal Stamping Works, Niagara Falls, N. Y.

Edwards Mfg. Co., Cincinnati, Ohio.

Van Dorn Iron Works Co., The, Cleveland, Ohio.

## WALL TIRES.

Niagara Falls Metal Stamping Works, Niagara Falls, N. Y.

## WASHING MACHINERY.

One and Phosphate.

Bailey-Lebby Co., Charleston, S. C.

## SAND AND GRAVEL.

Bonney Supply Co., Inc., Rochester, N. Y.

Davis Foundry & Machine Works, Rome, Ga.

Link-Belt Co., Philadelphia, Pa.

## WASHERS.

COPPER, IRON, BRASS, ALUMINUM.

Russell, Burdsall & Ward Bolt & Nut Co., Port

Chester, N. Y.

Stimpson Co., Edwin B., Brooklyn, N. Y.

Topping Bros., New York, N. Y.

## GRAPHITE AND BRONZE OIL-LESS.

Bound Brook Oil-less Brdg. Co., Bound Brook, N. J.

## WASHERS.

Amsco Machine Co., Max.

Anchor Post Iron Wks.

Anderson Co., V. D.

Arco Co., The.

Arctic Ice Machine Co.

Arnold Co., The.

Armo Iron Culvert & Flume

Mrs. Asso.

Arundel Sand & Gravel Co.

Arzinger Mch. Co., W. O.

Asher Fireproofing Co.

Aspromet Co.

Atkins & Co., E. C., Inc.

Atlantic, Gulf & Pacific Co.

Atlantic Steel Co.

Atlantic Equipment Co.

Atlantic, Gulf & Pacific Co.

Atlas Powder Co.

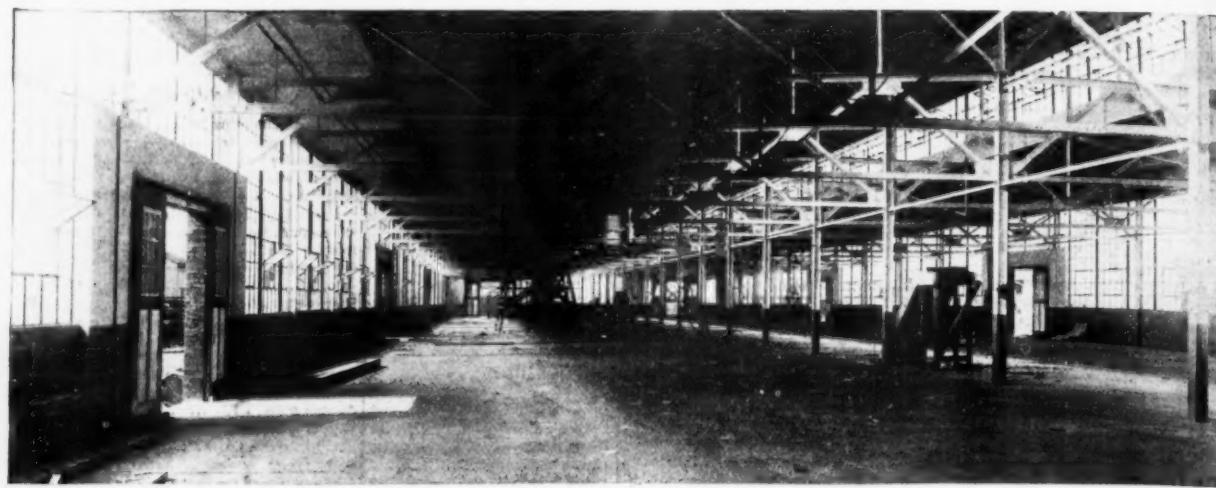
Austin Company.

Austin Mfg. Co.

Bailey-Lebby Co.,

Bainbridge Co.,

Alton Storage Battery Co.	8	Hartfelder-Garbett Mchry. Co.	97	Levitt & Co., Henry	101	National Mosaic Tile Co.	35	Trumbull Steel Co.	20
Alma Brass Mfg. Co.	30	Hartford Steam Boiler Insurance & Inspection Co.	2	Lewis Co., Ralph R.	98	National Products Co.	100	Tri-State Pipe Co.	90
Almaville, Geo. II.	80	Hartley Boiler Works.	10	Liberty Steel Co.	35	National Safe Co.	34	Trump Mfg. Co.	114
Almaville Mfg. Co.	36	Hauser-Stander Tank Co.	9	Lide, Martin J.	40	National Steel Rail Co.	101	Truscon Steel Co.	130
Almaville Machinery Equipment Co.	90	Hawkins-Hamilton Co.	92	Lidgerwood Mfg. Co.	106	National Transit Pump & Machine Co.	114	Tucker & Laxton.	41
Almaville Bond & Share Co.	*	Hayward Company	108	Light Railway Equipment Co.	102	National Tube Co.	116	Turner-Haleey Co.	13
Almaville Cable Co.	*	Hedrick & Hedrick	40	Lincoln Electric Co.	3	Nelson, Wm. P., Jr.	42		
Almaville Ozone Sterilizer Co.	*	Hendrick Mfg. Co.	113	Linde Air Products Co.	*	New Bern Iron Wks. & Sup. Co.	116		
Almaville Storage Battery Co.	*	Hercules Powder Co.	2	Link Belt Co.	21	New Haven Sand Blast Co.	90	Union Drawn Steel Co.	82
Almaville Wheel Co.	109	Herfurth Engine Co.	92, 98	Lock Box Co.	41	New Jersey Wire Cloth Co.	34	Union Iron Products Co.	*
Almaville Pump & Valve Co.	114	Herman, Albert.	90, 92	Lockett & Co., A. M.	103	New Jersey Zinc Co.	*	Union Iron Works.	10
Almaville Engineering Co.	102	Hersey Mfg. Co.	112	Lodge & Shipley Mch. Tool Co.	97	Newman Clock Co.	*	Union Mining Co.	12
Almaville Mch. & Supply Corp.	12	Hill-and-Pines Inn.	81	Lombard Iron Works.	10	Newman Mfg. Co.	*	Union Traction Co. of Indiana.	8
Almaville Perforating Co.	113	Hill-Brunner Fdry. Supply Co.	*	Longman & Martinez.	46	Niagara Falls Met. Stamp. Wks.	34	Union Trust Co.	70
Almaville City Iron Works.	11	Hires Turner Glass Co.	34	Lookout Boiler & Mfg. Co.	10	Nicholson File Co.	*	United American Iron & Steel Co.	*
Almaville Pump & Engine Works.	114	Hittner's Sons Co., Henry A.	90, 100	Louisville Drying Mch. Co.	*	Niles-Bement-Pond Co.	19	United Machine Works.	100
Almaville Hotel.	*	Hodgson Machinery Co.	92	Louisville Rendering Co.	*	Northrup & Sons, C. E.	89	Universal Road Mch. Co.	112
Almaville Co., Victor J.	*	Hoffman & Co., R. C. Inc.	31	Lowell Crayon Co.	*	Norton Machinery Co.	93	U. S. Cast Iron Pipe & Foundry Co.	*
Almaville, L. G., Inc.	*	Holting Engine Sales Co.	*	Lucey Mfg. Corp.	*	Northwestern Expanded Metal Co.	*	U. S. Fidelity & Guaranty Co.	100
Almaville Tool & Mch. Co.	*	Holting Machinery Co.	100	Ludowici-Celadon Co.	36	Northwestern Steel & Iron Works.	*	U. S. Motor Truck Co.	*
Almaville, Wm. H., 98, 98, 101		Holden Co., Chas. F.	80	Lufkin Rule Co.	18	Nussbaum & Co., V. M.	94	U. S. Rail & Equipment Co.	101
Almaville Tool & Mch. Co.	*	Hollands Mfg. Co.	18	Lumber Minerals Co.	*	Nuveen & Co., John.	80		
		Hunkenstein Co.	*	Lupton's Sons Co., David.	*				
		Hood Brick Co., B. Mifflin.	36	Luten, Daniel B.	40				
		Hornblower & Weeks.	*						
		Houston Railway Car Co.	101						
		Houston Stanwood & Gamble Co.	*						
		Howland, F. L.	*						
		Hughes Specialty Well Drilling Co.	*						
		Hunt Co., C. W.	*						
		Huntington Materials Co.	101						
		Hutherford Bros. Saw Mfg. Co.	*						
		Hyatt Roller Bearing Co.	*						
		Hyde & Co.	*						
		Hyndman Roofing Co.	36						
		I							
		Imperial Brass Mfg. Co.	24						
		Independent Pneumatic Tool Co.	*						
		Indra Co., L. B.	101						
		Foundation Company.	*						
		Frank, Jr., Henry.	31						
		Frank, M. K.	101						
		Freight Sulphur Co.	*						
		Freibund-Klyce Engineering Co.	40						
		Fremc & E. M.	108						
		Fresh Oil Mill Mchry. Co.	118						
		Frick Co.	14						
		Friend & Webre.	*						
		Frembling & Robertson.	42						
		Friedman-Friedman Co., The.	*						
		Fulmer Engineering Co.	41						
		Fulmer-Lehigh Co.	112						
		G							
		J							
		Jaeger Machine Co.	109						
		Jenney & Co.	103						
		Jeffrey Mfg. Co.	22						
		Jenkins Brick Co.	90						
		Jenison Real Estate & Ins. Co.	*						
		General Motor Truck Co.	*						
		Georgia-Car & Loco. Co.	101						
		Georgia-Carolina Brick Co.	36						
		Georgia & Florida Rwy.	*						
		Gammon Pipe & Foundry Co.	117						
		Glasow Clay Products Co.	36						
		Globe Automatic Sprinkler Co.	*						
		Golden's Fdry. & Mch. Co.	12						
		Goodrich Rubber Co., B. F., 17, 92	*						
		Goodyear Tire & Rubber Co.	*						
		Goode Mfg. Co.	*						
		Granger & Co.	*						
		Gunion & Knight Mfg. Co.	*						
		Ging Artisan Well Co.	114						
		Great Southern Lumber Co.	*						
		Greene, John M.	32, 92, 101						
		Green Fuel Economizer Co.	8						
		Greenon Construction Co.	101						
		Gregory Electric Co.	94						
		Griffith, Jas. F.	91						
		Gruendler Patent Crusher & Pulverizer Co.	*						
		Gruendler Bond Co., Wm. B.	101						
		Gruendler Patent Crusher & Pulverizer Co.	*						
		Gurnsey & Co., John B.	41						
		Gulf Refining Co.	13						
		Gulf States Steel Co.	28						
		Gwyn Machine Ships.	88						
		H							
		Bairdshaw Electric Cable Co.	*						
		Baird Mig. Co., Geo.	*						
		Baird & Sons, B. M.	40						
		Baird Institute, Alex.	*						
		Baird Machine Tool Co.	92						
		Baird-Byrd Iron Co.	*						
		Baird Heating Co.	*						
		Baird-Hamilton Co.	*						
		Banchett Bond Co.	81						
		Baird-Gregory Galv. Co.	31						
		Baird-Tynes Mig. Co.	103						
		Baird-Talc Co.	35						
		Bairn & Harlan Mch. Wks.	94						
		Bairn & King Perforating Co.	113						
		Baird Bros. Co.	96						
		Baird's Works.	*						
		H							
		L							
		K-B Pulverizer Co.	*						
		K. C. Elevator Mfg. Co.	*						
		Kemp Mfg. Co., C. M.	*						
		Kentucky Electrical Co.	103						
		Kern-Hunter Co.	98, 98						
		Keystone Driller Co.	108						
		Keystone Pipe & Supply Co.	88						
		Kilbourne & Jacobs Mfg. Co.	*						
		Kilby Frog & Switch Co.	102						
		Kingsport Brick Corp.	*						
		Kinnear & Co., W. S.	40						
		Kinnear Mfg. Co.	46						
		Kinney Mfg. Co.	111						
		Klein Co., Nathan.	88, 90, 94, 94						
		Kleinohns Co., H.	99						
		Kline, Lewis T.	*						
		Knowles, Morris.	40						
		Koehring Machine Co.	109						
		Koppers Co., H.	*						
		Kries & Sons Co., Henry A.	12						
		N							
		La Belle Iron Works.	27						
		Lackawanna Steel Co.	*						
		Laclede Steel Co.	*						
		La Cross Tractor Co.	92						
		Lakeside Forge Co.	129						
		Lambert Chemical Co.	*						
		Lambert Co., H. T.	89						
		Lane & Co., C. W.	41						
		National Blow Pipe & Mfg. Co. Ltd.	*						
		National Boiler Protector Co.	*						
		National Cast Iron Pipe Co.	*						
		National Equipment Corp.	*						
		National Exchange Bank of Baltimore.	*						
		National Manufacturers Bureau	*						
		National Metal Molding Co.	*						
		S							
		National Mosaic Tile Co.	35						
		National Products Co.	100						
		National Safe Co.	34						
		National Steel Rail Co.	101						
		National Transit Pump & Machine Co.	*						
		National Tube Co.	116						
		New Bern Iron Wks. & Sup. Co.	116						
		New Haven Sand Blast Co.	90						
		New Jersey Wire Cloth Co.	34						
		New Jersey Zinc Co.	*						
		Newman Clock Co.	*						
		Newman Mfg. Co.	*						
		Niagara Falls Met. Stamp. Wks.	34						
		Nicholson File Co.	*						
		Niles-Bement-Pond Co.	*						
		Northrup & Sons, C. E.	*						
		Norton Machinery Co.	*						
		Northwestern Expanded Metal Co.	*						
		Northwestern Steel & Iron Works.	*						
		Nussbaum & Co., V. M.	94						
		Nuveen & Co., John.	80						
		O							
		O'Brien Machinery Co.	95						
		Ocoee Brick & Tile Co.	36						



Dayton-Wright Airplane Co., 100 ft. x 400 ft. Daylighted by Steel Windows of Truscon Steel Co. Built in 22 working days by the Austin Company.



Large Expanse of Steel Windows of Dayton-Wright Airplane Co.



Dayton Metal Products Co. Daylighted by Steel Windows of Truscon Steel Co. Built by the Austin Co.

# TRUSCON STEEL WINDOWS

## Speedy Shipment of Stock Sizes

In warehouse stock, ready for shipment, are thirty types and sixty sizes of Truscon Steel Windows, meeting practically all requirements for daylighting and ventilation of buildings. Speed and economy of construction are assured by using stock units of Truscon Steel Windows.

High quality and speed of erection characterize Austin Standard Factory Buildings. Steel Windows of the Truscon Steel Co. are used in the buildings illustrated, as well as in many others erected by the Austin Company.



# Daylight to Speed War Industries

Wartime production requires speed, accuracy and elimination of waste. Ample daylight not only contributes to these ends, but improves the morale of operatives, betters their health and reduces accidents. It also affords an economy in light-bills.

Truscon Steel Windows, which are characterized by trim, clean-cut lines and flat surfaces, supply daylight and also fresh air in ample measure. They combine attractive appearance and exceptional strength in a manner that meets every demand of modern architecture and engineering.

Truscon Steel Windows represent the highest quality in design, construction, workmanship and hardware. Moreover, because of standardization and quantity production they are moderate in cost. All types of windows are furnished, including pivoted, sliding and continuous sash; also doors, partitions, etc. Note accompanying explanation of stock units.

Write or send coupon for a free copy of our handsome Window Book.

## TRUSCON STEEL COMPANY

(FORMERLY TRUSSSED CONCRETE STEEL CO.)

YOUNGSTOWN, OHIO.

WAREHOUSES AND REPRESENTATIVES IN PRINCIPAL CITIES



National Cash Register Co., Dayton, O. 58,000 sq. ft. of floor space. Daylighted by Steel Windows of Truscon Steel Co. Built in 30 working days by the Austin Company.

Truscon Steel Co.,  
Youngstown,  
O. Please send,  
without obligation,  
your Truscon  
Window Book, with  
complete details, ta-  
bles, etc.

Name.....  
Address.....



October 31,

O

Bloom  
Rails

Steam,

Chic  
Pitts

KUM

# TENNESSEE COAL, IRON & RAILROAD CO.

General Offices:  
Brown-Marx Bldg., Birmingham, Ala.

## PRODUCERS OF

### OPEN HEARTH STEEL

Blooms	Billets	Twisted Squares	Slabs	Foundry, Forge, Basic
Rails	Angles	Sheared Plates	Bars	"DeBardeleben" "Ensley" "Alice"

### Tennessee Special Tool Steel

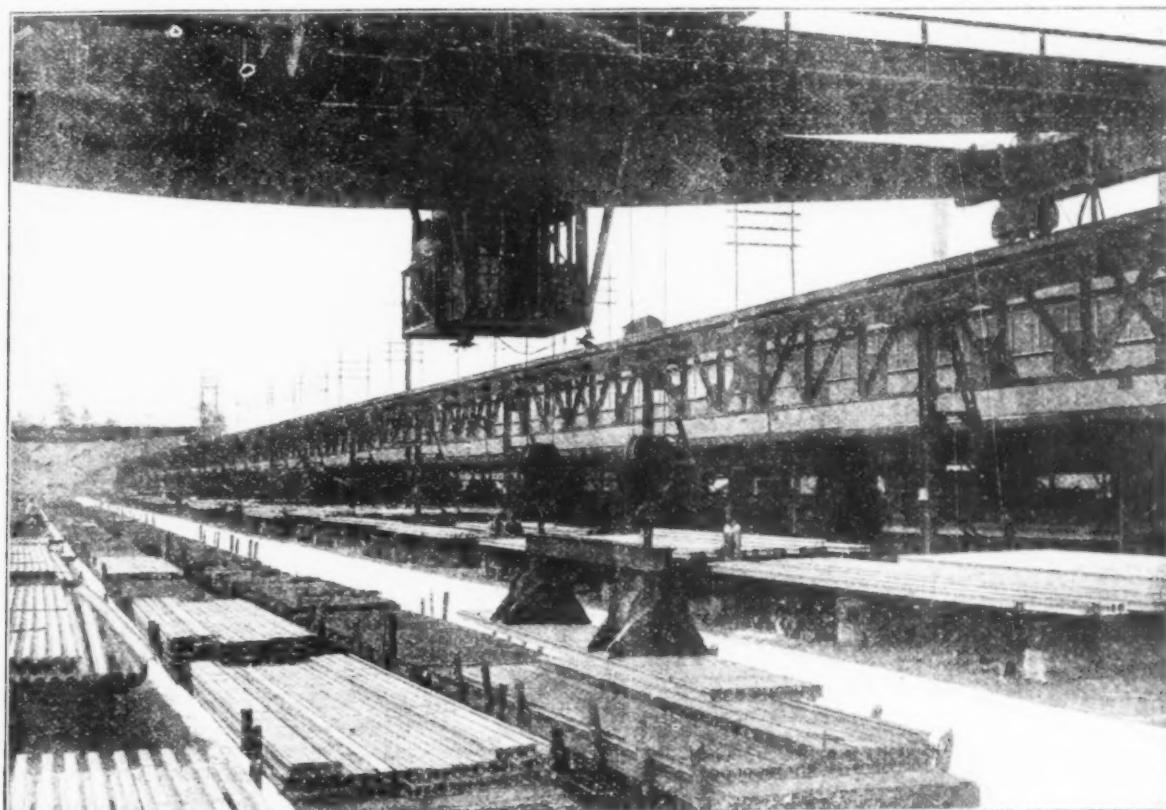
### COAL

Steam, Gas, Blacksmith, Domestic

### PIG IRON

Furnace, Foundry, Domestic

### COKE



Rail Loading Docks at Ensley Mill. Showing Modern Methods of Rail Handling.

### BRANCH OFFICES:

Chicago	Boston	Buffalo	New Orleans	St. Louis	Cincinnati	Cleveland
Pittsburgh	Denver	Detroit		St. Paul	New York	Philadelphia

Pacific Coast Representatives: United States Steel Products Co., San Francisco, Seattle, Portland, Los Angeles

Export Representatives: United States Steel Products Company, New York City

# Allied!

AMERICA'S might is behind the gallant men who are striking with pent-up fury, dealing trip-hammer blows along the entire extent of the fighting front, our Allies.

The fires of industry glow white-hot where the men of toil are forging the guns to deal out defiance to Autocracy. Every mighty force is responding to the needs of marching millions.

We are under way full tilt at last. Hear the roar and din of Yankee might. See the sweeping onrush of Nations at battle speed.

As America must aid our gallant Allies in this great world crisis and strike here and there with telling effect, so motor trucks must be the connecting link between the railroads, and the ships which bridge the bosom of the Atlantic *their* Allies!

**They are the Allies of every other form of transportation.**

**The Garford Motor Truck Company, Lima, Ohio**

Manufacturers of Motor Trucks of 1, 1½, 2, 3½, 5 and 6 ton capacity; 4½, 7 and 10 ton tractors

Distributors and Service Stations in all principal cities

*Garford*  
MOTOR  
TRUCKS

Here and there they dart over highways, taking up the slack, relieving deadening congestion, bringing up the essentials of war from districts which might otherwise be isolated but for the work of relief being done by motor trucks. Motor trucks are carrying their share of the load, hauling millions of tons of vital materials every day.

It is of vital importance now that every essential industry be supplied with motor truck equipment which fits in accurately with its needs.

Our specialists in transportation matters, backed by the Garford full and complete line of motor trucks of varying capacity and power, will be glad to co-operate with you in your hauling problems.

There is no problem too large or too small to have our fullest attention and honest opinion.

See the nearest Garford Dealer or write us. Address Dept. 2100.

